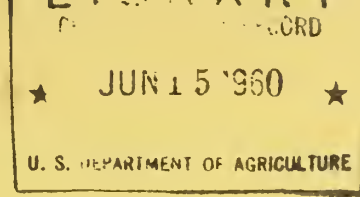


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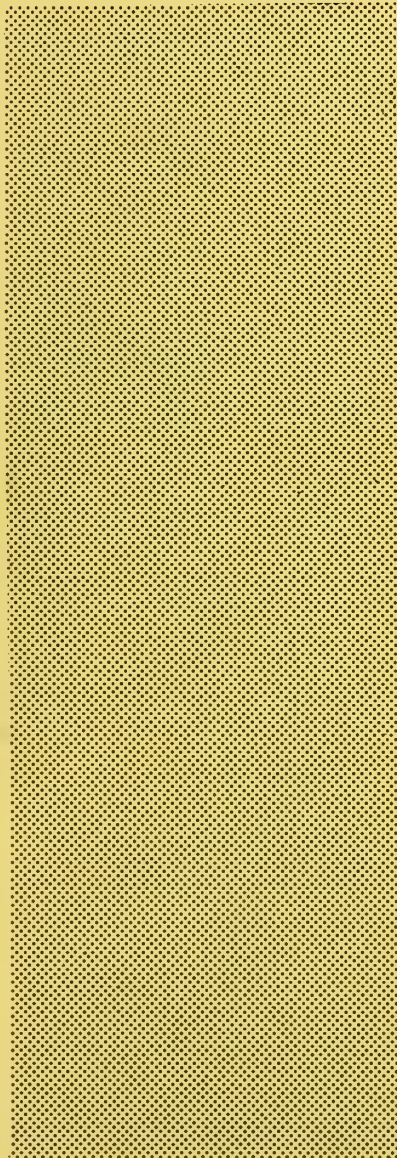
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# FOOD AND NUTRITION SERVICES



of Federal and  
Quasi-Official Agencies  
of the United States

Agricultural Research Service  
UNITED STATES DEPARTMENT OF AGRICULTURE

ARS 62-9



## FOREWORD

This is the eighth edition of a publication depicting the food and nutrition services performed by Federal and quasi-official agencies within the United States. As for previous editions, the several parts have been prepared by representatives of the respective agencies, usually by the persons most responsible for the food and nutrition work.

The first report was issued in March 1937 by an Interdepartmental Committee to Coordinate Health and Welfare Activities that was established by Executive Order 7481. Editions in 1939 and 1940 were issued to meet special needs of these periods. Editions in 1945, 1948, 1952, and 1954 have been prepared under the leadership of the Nutrition Programs Service of the Department of Agriculture to provide up-to-date information regarding organizational responsibilities and functions of the Federal agencies relating to food and nutrition, as these have developed to meet public needs.

It is hoped that this publication will continue to foster the mutual understanding and cooperative effort among agencies that is needed to ensure adequate food supplies and their effective use for good nutrition.

Hazel K. Stiebeling  
Director  
Institute of Home Economics

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# FOOD AND NUTRITION SERVICES OF FEDERAL AND QUASI-OFFICIAL AGENCIES OF THE UNITED STATES

## DEPARTMENT OF AGRICULTURE

To attain the goal of a well-fed population, a nation must have available enough food and a proper assortment of wholesome food to meet the needs for nutritional well-being within the general framework of food habits and standards. This food supply must be appropriately processed and effectively marketed to be available at the times and places needed by consumers and in forms suited to their purposes. Finally, the public must have sufficient knowledge and understanding to be able to select foods that will support good health and to use these foods economically and with satisfaction.

Since 1862 the U. S. Department of Agriculture has had many-sided responsibilities relating to nutrition--responsibilities concerned with the production, processing, and marketing of food as well as with human consumption of food and nutrition problems per se. It fulfills these obligations through research, regulatory, educational, and service programs conducted alone and in association with other Federal and State agencies.

## Agricultural Research Service

### Institute of Home Economics

The Institute of Home economics conducts a national program of research in food and human nutrition. Human nutrition research in the U. S. Department of Agriculture was first authorized by Congress in 1893. The program was enlarged to include other phases of home economics in 1915 when the Office of Home Economics was created, and further expanded in 1923 under the Bureau of Home Economics, subsequently reorganized as the Institute of Home Economics. The research in foods and nutrition is conducted by the Human Nutrition and the Household Economics Research Divisions. Most of this work is conducted at headquarters, but some phases of the program are carried on under cooperative or contract arrangements with various State agricultural experiment stations, colleges, and universities.

Food quality, preparation and preservation.--Evaluates the cooking and eating quality of foods, both established market grades and newly developed varieties or forms; studies the factors that affect quality from the standpoint of the household consumer; and establishes principles and procedures for the care, preparation, and preservation of food in homes and institutions. Fundamental information is obtained that relates physical characteristics, chemical properties, histological structure, and microbiological conditions to cooking and eating quality, wholesomeness, and yield of the prepared product. Studies are under way on vegetables and fruits, on meats and poultry, and commercially prepared food mixtures.

Composition and nutritive value of food.--Determines the kinds and quantities of nutrients and related constituents in foods as marketed and as prepared for eating, and the physiological utilization of nutrients from different foods. The program includes research on proximate composition, on proteins and amino acids, on mineral elements of nutritional significance, on B-vitamins recently recognized to be of special importance, and on the nature and occurrence of fatty acids and various lipids in foods.

Comprehensive tables of food composition are compiled from the worldwide scientific literature and available unpublished data. The tables are revised from time to time to take account of new developments in food production, processing, marketing, and home preparation, and to include data on additional nutrients as laboratory research makes such information available. The tables are widely used in the planning and appraisal of diets and food supplies.

Human requirements and nutritional response to diet.--Determines the food energy and the kinds and quantities of nutrients needed by individuals in different circumstances such as age, activity and environment; investigates functions and interrelationships of nutrients as they affect requirements for others; studies the body's response to various food combinations, including diet in relation to nutritional state. The program includes research to determine the factors that influence nutritional needs for fats and fatty acids, protein and amino acids, minerals and vitamins, and the physiological availability of various nutrients as affected by other dietary substances. Development of basic nutrition data and summaries of scientific knowledge on human metabolism, for use of research workers, is also part of the program.

Food consumption levels and the adequacy and economy of diets.--Conducts surveys to ascertain the kinds and amounts of food consumed by households the country over, and by various population groups, such as farm and urban families differing in composition and income level and living in different parts of the country; evaluates the nutritive adequacy of diets of individuals and groups; determines the relative economy of different foods as sources of essential nutrients; prepares guides to food selection and food budgets or food plans at various cost levels suitable for families or single persons in different circumstances; interprets and evaluates research findings pertaining to foods and problems of nutrition and develops source materials for use by leaders in nutrition education programs.

The nutrition programs service carries responsibility for coordination of nutrition services available to the public through programs of Federal, State, and other agencies; provides leadership in arrangements for national nutrition conferences held at intervals under the joint sponsorship of Federal agencies; and issues a periodical, Nutrition Committee News, which goes to members of State and local nutrition committees and other leaders in nutrition education and school lunch programs.

This unit also provides the secretariat of the Interagency Committee on Nutrition Education and School Lunch. This Committee is organized for the purpose of identifying common nutrition goals of member agencies and strengthening their related programs to improve the well-being of people through nutrition education and school lunch. It is made up of these Federal agencies: In the Department of Agriculture--the Food Distribution Division of the Agricultural Marketing Service; the Agricultural Research Service through its Institute of Home Economics; the Federal Extension Service; and the Foreign Agricultural Service. In the Department of Health, Education, and Welfare--the Children's Bureau; the Office of Education; and the Public Health Service. In the Department of the Interior--the Bureau of Commercial Fisheries and the Bureau of Indian Affairs. In the Department of State--the International Cooperation Administration. Two other agencies are represented--the American National Red Cross and the North American Regional Office of the Food and Agriculture Organization of the United Nations.

Research findings are published in technical reports for use by research workers, administrators, educators, producers, and processors. They are also applied in the preparation of teaching materials and background information for extension service staff, teachers, welfare workers, and others who work with families. In addition they are the basis for guidance materials for homemakers on food management and the selection, care, and use of foods.

## Farm Research

Farm research is concerned with matters relating to farming practices and the production and improvement of agricultural commodities. Included are studies on soil



and crop management practices; the conservation of soil and water; the development of improved farm machinery, equipment and buildings; the improvement of strains of farm livestock, poultry and domestic fur animals; the development of measures for controlling agricultural pests, diseases, and parasites of animals; and the economic aspects of all phases of farm operations.

Information is made available through consultation, conferences, attendance at industry and scientific meetings by the professional staff, press releases, radio and television presentations, and scientific and popular publications. Research results are made available in Department and cooperative State publications, and through technical professional journals.

Crops research.--Research is conducted on production and improvement, including quality investigations, of food, feed, fiber, oil, and specialty crops. Investigations are carried out at Federal field laboratories and in cooperation with the State agricultural experiment stations. Most of the new crop varieties are evaluated for quality before release. Some examples: In the case of wheat, four laboratories are maintained for the evaluation of milling and baking characteristics of new strains. Barley varieties are evaluated for malting properties; and new rice varieties are studied for vitamin content, milling, and cooking quality. New sugar beet and sugarcane varieties are analyzed for sugar content, and the effect of different cultural practices on sugar yield is determined. The linolenic acid of soybean varieties is evaluated because of its influence on the flavor of the oil. For horticultural crops, quality evaluations may include canning quality, vitamin content, acid content (of citrus), color, firmness of fruit, sugar content, and quality of frozen products, as well as storing and shipping quality. Oil determinations are made on peanuts, edible tree nuts, and sunflowers, and curing tests are conducted with peanuts in order to obtain an end product having desirable flavor. Onions are studied for their suitability for specific uses, such as dehydrating, pickling, boiling, slicing, and for keeping quality. Carrot varieties are evaluated for freedom from bitterness and for carotene content, as well as other qualities. New potato varieties are tested for storage quality, specific gravity, chipping and frying characteristics. Certain crops treated with herbicides are evaluated in test panels to detect whether or not any off flavor occurs. These tests are made in cooperation with other units in the Federal Government and State agricultural experiment stations. The principal release of research is through technical professional journals.

Soil and Water Conservation Research.--The U. S. Plant, Soil, and Nutrition Laboratory, established in 1939 under authority of the Bankhead-Jones Law, reports to the Soil and Water Conservation Research Division. The major part of the work is conducted at the Laboratory in Ithaca, New York, with studies conducted elsewhere as conditions permit, in cooperation with State agricultural experiment stations or other selected agencies.

The Laboratory's experimental work started in 1940 with preliminary surveys to determine (1) the relationship of soils and other environmental factors to the vitamin content of plants, and (2) the mineral content of plants and its effect on animals and man. The vitamin survey led to further studies of climatic and genetic factors. It led also to more fundamental studies to supply information needed both in further investigation of genetic, climatic, and soil factors and in investigations of the loss of vitamins in crops during storage.

The mineral survey developed into more intensive investigations of soil factors and plant composition in critical regions. The variations observed in the mineral content of plants emphasized the need for nutritional experiments with animals to make possible valid interpretations of these variations; a part of the current program is devoted to studies of the requirements of animals for minor elements that are obtained from the soil through plants; a further part of the program is directed toward understanding the role of mineral nutrition of plants in relation to the organic constituents of plants.

Specific objectives of the Laboratory are: To expand fundamental knowledge of the relationships of soil properties (both natural soils and arable soils as modified by

treatment) and of climatic factors to the nutritional qualities of plants and plant products as measured by biochemical assay or by feeding to test animals; to identify and characterize soil and climatic areas in the United States which produce crops containing toxic accumulations of certain components or significantly inferior to the normal in content of nutrient constituents for animals or man, and to determine practical procedures for correcting these adverse conditions; to explore variations in the nutrient content of plant material with genetic differences to provide information basic to plant breeding programs aimed at improving the nutrient constituents of food and feed crops; and to review, analyze, and interpret the available results of research in these fields.

An intradepartmental technical advisory committee assists the Division in developing the Laboratory's program. A national group of collaborators, outstanding investigators in soils research and in plant, animal, and human nutrition, also advises on program and provides for interchange of information between the Laboratory and other organizations working in similar or related fields. The principal release of results of research is through technical and semitechnical publications for professional workers.

Livestock research includes Animal Husbandry Research and Animal Disease and Parasite Research on all classes of farm animals. Annual appropriations provide for carrying on research on livestock production and animal diseases.

Animal Husbandry Research.--Much of the current research with dairy and beef cattle, sheep, swine, poultry, and fur animals is conducted in cooperation with State agricultural experiment stations with a regional type of organization. Close liaison is maintained with State research workers through regional advisers and technical committees and livestock industry organizations.

Present meat animal investigations are concerned with the effect of genetic, nutritional, and management factors on the development of improved types of livestock that will yield products meeting the needs and preferences of consumers. This work includes studies of the influence of breed, breeding, type, feed, level of feeding, nutritional adequacy, age, sex, rate of growth, degree of finish, and other production factors on yield, quality, composition, and nutritive value of meat and meat products with special attention to fat and lean characteristics.

Research on poultry is, in general, similar to that on other livestock. The studies include those on influence of age, sex, and breeds of chickens and turkeys on the yield of parts of the carcass and total edible meat, and studies of the influence of age, sex, and fattening upon the interrelationship of the crude chemical components of the edible meat. Shell eggs have been studied intensively for a number of years. These studies have been made because of their importance in poultry husbandry and their direct application in the field of human nutrition. The investigations include the effect of breeding, and temperature deterioration upon the physical quality of the egg white and yolk. These physical changes have also been studied in relation to egg grades, candling, and consumer use.

Present investigations in dairy husbandry are concerned with factors that affect the composition of milk, including studies of (1) the composition and nutritional value of feeds, (2) the adequacy of feeds in meeting the cow's nutritional requirements, (3) the effect of feeds and feeding regimes on the quantity and composition of the milk produced, (4) the development of synthetic rations to more accurately determine the nutritional requirements of the young calf, and (5) the solids-not-fat content of the milk of individual cows and factors that influence these values. Considerable research has been done to determine the vitamin content of milk, particularly vitamin A, and the factors that influence the vitamin content of milk and its products. Fundamental research is underway on the nutritional properties of milk fat and butter. Intensive studies to determine the nature and nutritional significance of unidentified nutrients in milk recently demonstrated that milk is a good source of vitamin B<sub>12</sub>. Investigations are underway to study the content of vitamin B<sub>12</sub> in milk and milk products and to determine the factors that influence these values. Studies are also made to establish whether or not milk contains



still unidentified nutritive substances. Related work is included to determine the effect of various nutritional factors in milk on the nutritional and physiological responses of the animal body.

**Animal Disease and Parasite Research.**--Responsibilities of the former Animal Disease Station and the Pathological, Parasitological and Biochemic Divisions of the Bureau of Animal Industry created by an act of Congress May 29, 1884, were organized under the Animal Disease and Parasite Research Division. Research programs are carried out in the three principal laboratories, namely, National Animal Disease Laboratory, Beltsville, Md. (to be transferred in 1960 to a new laboratory which is now under construction near Ames, Iowa), Beltsville Parasitological Laboratory at Beltsville, Md., and Plum Island Animal Disease Laboratory located off Long Island, N. Y. and 12 field stations. The program is extended through cooperative research projects with State agricultural experiment stations in the U. S. and laboratories in Europe and East Africa.

Current investigations are conducted on all phases of many diseases of domestic animals which affect the adequacy, wholesomeness, and quality of meat, milk, and eggs and related food products. Elimination or minimizing diseases of food-producing animals is extremely significant in preventing transmission of diseases to humans and improving our standard of living. In order to assure these things, it is necessary to gain complete knowledge on microbial, parasitic, and metabolic causes of disease, mechanism of infection and immunity, prevention, prophylaxis, and the presence of disease producing agents as well as their pathological affect on animals and food products derived therefrom.

**Entomology Research.**--The work of the Entomology Research Division relates to food and nutrition since the development of efficient methods for the control of destructive insects and mites results not only in increased crop yields but higher quality food products. Research is conducted at Federal field laboratories throughout the country, in cooperation with many State agricultural experiment stations, and in a few laboratories abroad. Insects must be controlled on nearly all kinds of fruit, vegetables, cereals, and livestock in order to provide the consumer with high quality and nutritious food products.

Insecticides are one of the chief methods used to protect crops and livestock against the ravages of insects. However, their use may result in residues so extensive investigations are conducted to determine the magnitude of residues in or on plant products, in meat, and in milk. Insect control schedules are determined so that the interval of time between last application of an insecticide and harvest will result in no residue or only amounts that fall within the safe tolerance limit established by the Food and Drug Administration. The residue investigations also include cooperative research with the Human Nutrition Research Division and the States on the effects of insecticides, if any, on the flavor of food products. These studies assure the public of wholesome food without insecticide contamination. Other studies involve the development of control measures on flies, cockroaches, and other household insects that contaminate food and may cause the householder to discard otherwise good food because of these filth insects. Some research is underway on the development of nutritional media for rearing insects for research purposes. Although not designed to develop information relating directly to human or animal nutrition, such studies may provide basic information on nutritional requirements for insects which could be of great value in nutritional requirements of higher animals.

Each year, in cooperation with the Federal Extension Service, a revised handbook is issued giving the latest insecticide recommendations of the Entomology Research Division for the control of insects attacking crops and livestock.

#### Utilization Research and Development

Utilization research has been conducted in the U. S. Department of Agriculture since the Department's creation in 1862. This activity had its beginning in the Division of Chemistry, and has continued within successive Department groups. Today it is a part of the Agricultural Research Service, under the direction of the Deputy Administrator for Utilization Research and Development.

Utilization research seeks, through well-programmed scientific and technological efforts, to increase present uses for farm products and to discover and develop varied new uses for them. By utilization research the naturally occurring properties of agricultural commodities are modified and improved to fit today's competitive market demands. Development of new products and economical processes for making them gives increased returns to farmers and provides higher living standards for all.

Food utilization research stresses development of products having convenience-in-use, eye-appeal, tempting flavor and texture, excellent nutritive qualities, fresh quality maintenance under adverse conditions of distribution and storage, and savings in bulk and weight.

The program embraces basic studies, development work, pilot plant evaluations, and commercial applications. Cooperative research is done with other government agencies, the military forces, State experiment stations, colleges and universities, manufacturers, trade associations, and private laboratories. Some of these joint efforts are undertaken by contract; considerably more is achieved on a free-exchange-of-ideas basis. Extensive use is made of collaborators and cooperators, fellowships and student training, industrial and technical advisory committees.

Food research is conducted in four utilization research and development divisions, whose headquarters are in Philadelphia, Pa., Peoria, Ill. New Orleans, La., and Albany, Calif. Several field stations within each division also do food research, particularly those at Winter Haven, Fla., Weslaco, Tex., Pasadena, Calif., Raleigh, N. C., and Prosser and Puyallup, Wash. Examples of current investigations are given below:

Cereals and Sugars.--New food uses for wheat and rice; compositional research on wheat and rice as basis for developing new and improved foods; specific studies of starches and other carbohydrates, proteins, lipids and other constituents as related to baking and other food uses; investigations of flour constituents as related to bread qualities; methods for selecting wheat flours for specific baked products; frozen preservation of bakery products; parboiled wheat food products; freeze-processing of rice; characterizing commercial rices moving in world trade channels; studies of beet and cane sugars to achieve more efficient processing; development of "direct use" sugars for commercial food manufacture; enhancing flavor of maple syrup; new food uses for honey.

Oils and Oilseeds.--Methodology of lipid fractionation, separation, and characterization; determining role of carbonyls in fat oxidation; peroxide studies; action of microorganisms on fat; development of new hydrogenation techniques; biological and chemical hydrolysis of fats; characterization and production of new confectionary fats; improved color and methods for measuring color of edible oils; compositional changes affecting flavor of peanut products; developing means for stabilizing soybean oil; development of new analytical techniques including gas chromatography.

Poultry and Poultry Products.--Determination of factors affecting stability of precooked frozen poultry products under various temperature conditions; development of procedures to achieve optimum tenderness in frozen poultry; microbiological studies of precooked frozen poultry products; basic studies of poultry flavor; basic chemical and compositional studies of eggs; new and improved uses and stabilization of desired qualities in egg products; studies for controlling Salmonella in egg products; radiation preservation of poultry and egg products.

Fruits and vegetables.--New and improved fruit and vegetable products and processes for their production; new techniques for dehydrofreezing and dehydrocanning, dehydration, freezing, and canning; fundamental studies of enzyme systems, chemical composition, chemical basis of flavors, and processing variables; studies of changes in frozen fruit and vegetable products under conditions such as encountered in commercial handling, as a basis for developing improved products and processes; basic studies to improve stability of shelled walnuts; fundamental studies of the constituents of citrus, dates, and other subtropical fruits and vegetables necessary to product and process development;



development of fruit and vegetable juice powders, fruit essences and concentrates, and new potato products such as dehydrated mashed potatoes in both flake and granule forms; studies of processing variables for sweet potatoes and white potatoes; control of spoilage and spore-forming bacteria in canned fruit and vegetables.

Dairy products.--Investigation of concentrated and dried milks, particularly foam-dried whole milk; structure and stability of milk proteins; improved procedures for making cheddar cheese, including studies of cheese starters and development of methods for detecting antibiotics; factors affecting stability of concentrated sweetened cream; means for controlling spreadability of butter; chemical characterization of minor components of butter fat; effect of variations in composition of heat stability of milk; chemical studies of bacterial spores related to spoilage in milk; development of high milk-protein bread; investigations of whey utilization.

Meat and meat products.--Isolation and properties of salt-soluble proteins; water retention and adhesiveness in meat products; studies of the water-soluble proteins of beef muscle and tenderness reversion in frozen beef; studies of factors affecting juiciness and tenderness of meat products; meat flavor studies, including development of flavor in cured meats; action of micro-organisms on meat fats; role of carbonyls in oxidizing animal fats; quality retention in frozen meat products.

Pioneering research.--Fundamental investigations of milk and cottonseed allergens; isolation and characterization of milk proteins; basic studies of plant proteins and plant enzymes.

Publicizing research results.--Utilization research and development results are made known to the public in various ways, including presentations to scientific, industrial, and layman organizations at local, regional, national, and international meetings. Liaison is constantly maintained with industrial and other groups interested in utilizing the findings in commercial uses or further related scientific studies. The information developed is published in scientific journals, trade journals, newspapers, and non-technical publications. Public service patents are obtained on methods, processes, and products in order to protect the public interest. A cumulative index of USDA utilization research publications and patents, classified according to Division and commodity, is published semi-annually.

### Experiment Stations

The State Experiment Stations Division under authority of the Hatch Act, as amended 1955, is delegated responsibility for the administration of the Federal grants to the State Agricultural Experiment Stations in support of researches having for their purpose, along with other stated objectives, the development and improvement of the rural home and rural life, and the maximum contribution by agriculture to the welfare of the consumer. The authorized Federal-grant payments to States stimulate additional research support in the form of State appropriations and private grants.

The Hatch Act, consolidating provisions of earlier Acts, provides a broad base for food and nutrition investigations at the State Experiment Stations. Among the provisions consolidated are those of the Research and Marketing Act of 1946, which authorized further research relating to the quality of plant and animal commodities and improved methods for their production, marketing, distribution, processing, and utilization; and the development of new and extended uses and markets for agricultural commodities as food. The Act further provides for research into the problems of human nutrition and the nutritive value of agricultural commodities. Independent research in these areas is conducted by the Stations. Problems of importance to more than one State in a region, may, however, under provisions of the Act, be investigated through cooperative regional researches, involving the participation of two or more State Experiment Stations.

The role of the State Experiment Stations Division in relation to this total research program is primarily one of technical service to the experiment stations, involving planning, coordination and review of research. The Division approves experiment station research proposals contemplating the use of Federal-grant funds; maintains an administrative record of support and accomplishments, including annual reports of progress; and, through annual visits of staff examiners, reviews the research programs at the stations. The Division gives final approval to regional research proposals, and through its representatives assists in the planning and coordination of the regional investigations. Staff specialists, familiar with all station research programs in specific subject matter areas, and with similar or related line projects undertaken by the Department of Agriculture, are in a favorable position to serve in liaison capacity and to assist in coordination of research between the States, or between the States and the Department in accord with the pattern of State-Federal cooperation that has developed over the years.

The Hatch Act requires the Secretary of Agriculture to report annually to the Congress on the receipts, expenditures, and work of the Agricultural Experiment Stations. This summary report of fiscal and operational activities of the stations is prepared by the Division for the Secretary's use and published for distribution. The Division also compiles from time to time research summaries indicating the nature and purpose of projects supported with Federal-grant funds, since the format and frequency of these reviews currently is being revised. These summaries include the projects covering the many aspects of research in food and nutrition.

#### Regulatory Programs

Meat inspection.--Federal inspection of meat was first authorized in 1890 with the emphasis mainly on satisfying export requirements of foreign countries. In 1906 the present meat inspection law was enacted which provided for the inspection to be applied in establishments preparing meat and meat food products of cattle, calves, sheep, swine, and goats for sale in interstate or foreign commerce. (In 1919 this was extended to include horses to a limited extent.) Approximately 80 percent of the meat produced commercially in the United States is prepared under Federal meat inspection. The inspection assures the sale of only such meat as is derived from healthy animals, is prepared under clean and sanitary conditions, and is sound and wholesome. It prevents the use of harmful preservatives and deleterious ingredients or materials which have not been proved to be both safe and to serve a useful purpose. Diseased or otherwise unwholesome meat is destroyed for food purposes. Standards of identity for meat food products are promulgated and minimum standards which deal particularly with kind and quantity of meat in products are developed and administered. Adulteration of meat food products with water or excessive filler is prevented. A system of label control administered by the Division assures meat food products prepared under Federal meat inspection of being informatively and truthfully labeled.

Meat and meat food products offered for importation are covered by a system of certification and inspection to assure their being the equivalent of domestic products.

Process or renovated butter is inspected to assure production of a wholesome product properly identified. (This program was transferred from the Bureau of Dairy Industry to the Meat Inspection Division in 1954.)

Work for other Government agencies includes examinations for all Government purchasing agencies to assure compliance with contract specifications.

The program is financed by appropriations with the packer reimbursing the Division for service performed on an overtime basis. Work for other Government agencies is on a reimbursable basis.

The Division participates widely in civil defense activities particularly in planning for meeting problems which might affect the quality or wholesomeness of our meat supply.



The Division consults and advises with local, State, and other Federal food control agencies concerning problems in the food field.

The Division aims its service at not only giving the consumer meat that is clean, sound, wholesome, free from adulteration, and truthfully labeled, but also assuring the American farmer of a continuing market for his food animals by keeping the confidence of the consumer and thus assuring continued high meat consumption.

The Plant Quarantine Division prevents the spread of injurious plant pests through the enforcement of quarantines affecting the entry into the United States of plants, plant products, and pests from foreign countries, the movement of such products and pests between the United States' possessions and the mainland, the interstate shipment of products restricted by domestic plant quarantines, and the inspection and certification of plants and plant products for export to meet plant quarantine import requirements of countries of destination.

The Plant Pest Control Division directs such activities as cooperative pest control operations to eradicate, suppress, or control insect pests and plant diseases of national importance, including incipient infestations of newly introduced pests of foreign origin; enforcement of domestic plant quarantine and regulatory orders restricting the interstate shipment of plants or plant products and other materials capable of spreading destructive insect pests and plant diseases from quarantined States; regulations of the marketing of economic poisons and devices; cooperative countrywide collection, reporting, and forecasting of economic pest abundance; development of procedures and standards for operation of agricultural aircraft and special purpose equipment used for pest control, including safety, and the demonstration of control techniques.

### **Farmer Cooperative Service**

Research and educational assistance to farmers' cooperatives was started in the U. S. Department of Agriculture in 1912. This work was placed in the Division of Cooperative Marketing by the Cooperative Marketing Act of 1926. The Division was transferred to the Federal Farm Board in 1929, and in 1933 was incorporated into the newly formed Farm Credit Administration. Under the Farm Credit Act of 1953 the Farm Credit Administration became an independent agency. Under this Act work with cooperatives remained in the U. S. Department of Agriculture and was placed in the Federal-States Relations group as Farmer Cooperative Service, under the reorganization plan for the Department, effective late in 1953.

Farmer Cooperative Service conducts research studies and engages in service and educational activities that are of direct assistance to farmers through their cooperative organizations enabling them to make their maximum contribution to the production and distribution of needed foods and fibers. Many studies also are carried on in cooperation with Land-Grant Colleges and other agencies serving farmers.

Through assistance to cooperatives on problems of management, organization policies, financing, merchandising, control of product, quality, costs, efficiency, and membership, Farmer Cooperative Service enables these associations to more effectively move various farm products through market channels to consumers.

More specific studies of the Service are of value both to farmer members of cooperatives and to the users of their products. In the field of livestock marketing, for example, studies have been made relating to the marketability of meat-type hogs and to the processing of sausage in small plants. A study of the incidence and degree of bruising to livestock in transit not only emphasizes the waste and economic loss to farmers, but also indicates effects of bruising on quality and shelf life of meats.

Work of the Service with fruit and vegetable cooperatives has emphasized economies in the processing of frozen food concentrates and, among others, ways in which Sunkist

citrus, Diamond Brand walnuts, and other cooperative products have been improved in quality to the mutual benefit of producers and consumers.

Recent studies by the Service have shown that bulk handling of milk can reduce costs, improve quality, and make long distance transportation of milk easier. Bulk handling may thus contribute to ready availability of milk at minimum cost to consumers. A survey was made of the use of multi-quart containers by 187 milk distributing cooperatives. Increased use of these containers has been beneficial to both the milk industry and consumers.

A survey of some 2,500 frozen food locker and freezer provisioning plants in the United States shows the important role of these local plants in the processing and distribution of frozen foods to home freezer users as well as to local institutions, small retailers and farmers. Zero holding capacity in locker plants and in home freezers, estimated at 169 million cubic feet, is capable of storing over 5 billion pounds of frozen foods. Locker and freezer provisioning plants are performing an important service to producers and consumers in this newer method of food merchandising.

## Federal Extension Service

The Cooperative Extension Service in agriculture and home economics is conducted under the provisions of the Smith-Lever Act of May 8, 1914, as amended by Public Law 83, June 26, 1954.

The general objectives of the foods and nutrition program of the Service are to help families:

1. To understand the relation of food to good health.
2. To develop and follow good food habits.
3. To know and understand selection of food for an adequate diet.
4. To serve attractive and nutritious meals quickly and easily.

More specific objectives are to help homemakers and 4-H Club members:

1. To understand the daily food needs of the individual members of the family.
2. To develop skill in food preparation and in serving meals.
3. To make best possible use of home-produced foods.
4. To preserve food by freezing and canning where practical.
5. To learn to buy food wisely.

The foods and nutrition program also encourages the family to help in solving the food problems of the community.

Program.--The Cooperative Extension Service helps people to analyze their needs and to plan a program based on needs and interests. To this program the Extension Service brings the best research knowledge available from the Department of Agriculture, Land-Grant Colleges, and other sources. Some of the current problems are:

1. Improving teenage nutrition--research has indicated that teenagers are the group most poorly fed.
2. Food facts and food fallacies--the public needs to be educated to the facts about foods and nutrition to give them a basis on which to judge the misinformation being spread.
3. Weight control--programs on controlling weight are used as a basis for teaching the importance of good eating habits for all family members.
4. Buying and selection of food--it becomes more of a problem as the number of food items available in the market multiply and as the competition for the family living dollar becomes more acute.
5. Meal management--as more women work, planning, buying, and preparing well-balanced, attractive meals quickly and easily becomes a challenge.
6. Home food supply--many families still produce and preserve some food.



Personnel and Methods for Conducting the Program.--The Federal and State Extension specialists give leadership to overall programs and provide continuous inservice training on subject matter through workshops, conferences, and releases.

One hundred and two State foods and nutrition specialists give individual guidance and training to approximately 4,200 county home demonstration agents in 3,000 counties. Through them, homemakers obtain the findings of scientific research that apply to the home. This information is translated into everyday language and made available in practical form through mass media, meetings, demonstrations, home visits, and office conferences.

Teaching by voluntary local leaders is a unique feature of cooperative extension work. Each year approximately 212,000 voluntary local leaders trained by home demonstration agents or nutrition specialists assist with the foods and nutrition program in their counties.

Approximately 7½ million families participate yearly in home economics extension work. Of these, 30 percent are farm, 24 percent rural nonfarm, and 46 percent are urban homes. In 1958, 5 million families were assisted in improving diets, in home production of the family food supply, with food preservation problems, and with food preparation. In addition, more than 970,000 of the 2,253,999 boys and girls who were members of 4-H Clubs were carrying on projects in food preservation and preparation, including the planning and serving of meals in keeping with the dietary needs of their families.

## **Agricultural Marketing Service**

### **Food Distribution Programs**

The School Lunch Program was authorized on a permanent basis by the National School Lunch Act, Public Law 396, 79th Congress, June 1946. Its purpose is to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting States to maintain and expand nonprofit school lunch programs. Under the Act, cash grants are provided to States to be used to assist participating schools to purchase food from local suppliers. Additional assistance to schools is provided in the form of donated commodities. Some of these foods are purchased specifically for the program. Other donated foods are those acquired by the Department of Agriculture under price support and surplus removal programs.

The Special Milk Program is designed to increase fluid milk consumption by children in nonprofit schools of high school grade and under and in nonprofit summer camps, orphanages, neighborhood houses, and other nonprofit child-care institutions. This program was originally authorized for two years, 1954-55 and 1955-56, but has twice been extended by the Congress. It is now authorized through June 30, 1961. To increase fluid milk consumption, a system of reimbursement or incentive payments has been established. These payments make it possible for schools, camps, and childcare institutions to inaugurate a milk service, or to expand their current service by offering milk at reduced prices or by establishing new times of service.

The Direct Distribution Program is operated under the authority of Section 32, Public Law 320, 74th Congress, August 1935, and under the authority of Section 416 of the Agricultural Act of 1949 and related authorities. Its purpose is to provide constructive outlets for food commodities acquired under the Department of Agriculture's price support and surplus removal programs. Commodities available under both Section 32 and Section 416 may be donated to nonprofit school lunch programs, and to charitable institutions and to needy persons within this country. Section 416 commodities also may be donated to intergovernmental groups and to U. S. private welfare agencies for the relief of needy persons overseas.

The Food Trades Program is operated under the authority of Section 32, Public Law 320, 74th Congress, August 1935. Its purpose is to increase the marketing of food through normal trade channels by securing the cooperation of food producers and distributors and allied groups in merchandising programs for those foods available in plentiful supply. Through these efforts, the attention of the family and large-scale food buyers is focused on those items which, because of their abundance, represent good food buys.

How Food Distribution Division Operates.--In the Washington Office of the Food Distribution Division, program plans and operations are developed in accordance with Congressional authority and in collaboration with other divisions of Agricultural Marketing Service, Commodity Stabilization Service, Agricultural Research Service, and the U. S. Office of Education. The National School Lunch, Special Milk, and Direct Distribution Programs are administered through agencies of the States and possessions. These agencies are regularly consulted in the formulation of program plans. As the need arises, the Department also obtains advice from a group of School Lunch Advisers to the Secretary. They represent State and local school officials who are concerned with the administration of the National School Lunch Program. The Food Trades Program is carried out in close cooperation with national producer and food trade associations and with key distributors in major markets throughout the country. Field administration of these programs is carried out through area and subarea offices of the Food Distribution Division. These offices are staffed with personnel trained in program administration, food marketing, home economics, and food preservation who work with cooperating State agencies and with food distributors.

### Civil Defense and Defense Mobilization Planning

The possibility of sudden changes in the international situation or in the Nation's general food-supply situation requires that the Government give continuous attention to planning for meeting possible emergencies.

Current emergency planning in the Department is tied closely to regular programs, and extends through the additional work and planning that are part of its specific responsibilities under delegations from the Office of Civil and Defense Mobilization.

Among some of the many responsibilities the Department of Agriculture has in this Government-wide civil defense and defense mobilization planning are the following: (a) Periodic evaluation of the estimated requirements for the supplies of food under various assumed emergency conditions; (b) recommendations concerning needed expansions in productive capacity and the development of programs to obtain such expansions, in order to overcome deficiencies in the mobilization base; (c) cooperation with other Departments in correcting apparent deficiencies in food processing or distribution or the capacity of supporting industries such as farm machinery and fertilizer; (d) development of standby plans relating to food allocation and distribution; (e) cooperation with other Departments of Government to insure the availability of nonfood requisites needed to carry out the food program under emergency conditions; (f) cooperation with the Office of Civil and Defense Mobilization with respect to the planning of emergency food programs to be used in the period immediately preceding or following enemy attack; and (g) working with States and local governments to coordinate Federal, State, and local emergency plans.

### Market News Service

The Market News Service, administered by the several commodity divisions, originated by action of the Secretary of Agriculture in creating an "Office of Markets" on May 16, 1913. From 1915 to 1946 authority for the continuation and expansion of these services has been contained in annual agricultural appropriation acts. The Research and Marketing Act of 1946 contains permanent authority for the Service.



These market news services were developed to provide all segments of industry from the grower to the consumer with accurate and timely information on supply, commercial movement, disposition, quality, condition, and market trends and prices of most agricultural products in important terminal markets and in the major producing and shipping areas. Consumers have become more sensitive to quality and are demanding more and better services, thus intensifying the need for market news services geared to modern realities.

In Washington, each commodity division is responsible for the market news service on those commodities for which it has been assigned responsibility. The market news work of all divisions is coordinated through the Office of the Deputy Administrator for Marketing Services. Outside Washington, activities are carried on through a system of field offices, both seasonal and permanent, located in the major terminal markets and more concentrated producing areas. These offices fall into three basic categories: (1) Federal, (2) Federal-State, and (3) State. Federal-State offices are operated under cooperative agreements between the Federal and State governments.

Market news offices are connected by a leased wire system which aids in the exchange of information between offices. Market news is disseminated both from Washington and field offices to the public through mimeographed reports, newspapers, radio, television, personal contacts, telephone, and telegraph. In addition to the market reports of commodity divisions, the AMS Marketing Information Division compiles a large number of market news summaries in its five area offices and in Washington. These summaries, covering nearly all of the major farm commodities in the respective areas, are released to newspapers and radio and television stations through the press associations. The area information offices maintain close liaison with these principal news outlets and keep them constantly supplied with market information throughout the Nation.

#### Standardization, Grading, and Inspection Services

The activities of the standardization, grading, and inspection services, administered by the various commodity divisions, originated in 1907 with funds granted the Department by Congress to study Federal standardization. Additional basic authority for these services was provided by the creation of the Office of Markets in 1913, the passage of the Cotton Futures Act in 1914, the Grain Standards Act and the Food Products Act in 1917, the Cotton Standards Act in 1923, the Tobacco Stocks and Standards Act in 1929, the Tobacco Inspection Act in 1935, the Research and Marketing Act of 1946, and the Poultry Products Inspection Act of 1957, together with the authority carried annually in the agricultural appropriation acts to formulate standards and to inspect and certify the quality and condition of farm products.

These services are developed to provide any interested party with convenient yardsticks of quality. Standards and grades for agricultural products have, therefore, become an essential factor in modern commerce and are especially valuable in long-distance trading. Standards have been developed and are administered by the Department for nearly every major farm product and are being constantly revised to keep them abreast of changing conditions, such as the advent of new crops or products, new handling methods, and changes in consumer demand. Some of the official services and some of the standards are mandatory and others are voluntary. Market inspection certificates issued by authorized agents of the Department of Agriculture are received in all courts of the United States as prima facie evidence of the truth of the statements therein contained.

In Washington, each commodity division is responsible for the work performed on its assigned commodities, and the work of all divisions is coordinated through the Office of the Deputy Administrator for Marketing Services. Outside Washington, activities are carried out through a system of field offices, both seasonal and permanent, located in the major terminal markets and more-concentrated producing areas. Federal-State offices are operated under cooperative agreements between the Federal and State governments and in some instances associations and marketing groups. All standardization, grading, and inspection field offices operate under supervision from Washington.

## Statistical and Historical Research

The work of the Statistical and Historical Research Branch, Agricultural Economics Division, related to nutrition is directly connected with the national food situation. Series of statistical data on total food supplies, civilian consumption, and the distribution of foods to other outlets are maintained. Each quarter the statistical data on annual per capita civilian consumption of individual foods, both historical and current, are reviewed, with indications of probable supplies a few months or a year ahead. Estimates of the demand for food are also made in the Branch.

Each year the Branch provides the Institute of Home Economics with estimates of per capita consumption for use in estimating the nutritive value of the food supply. These statistical data on nutrient supplies, together with an interpretive statement prepared by the Institute of Home Economics, are carried each year in the National Food Situation.

The historical series were published in Consumption of Food in the United States, 1909-52, Agriculture Handbook No. 62, then revised by the Supplement for 1956, and brought to date in later annual supplements.

In addition, the Branch develops economic analyses of historical trends and variations among population groups in consumption of all foods and individual foods. The principal objective of these analyses is to determine the effects of major supply and demand factors on consumption rates in order to improve short- and long-term projections.

### Agricultural Estimates

Older than the Department of Agriculture itself, agricultural estimates work began in 1839 in the Patent Office. When the Department was established in 1862, specific provisions were made for collecting and disseminating agricultural statistics. The annual appropriations legislation also provides authorization for this service each year.

Crop and livestock reports issued by the U. S. Crop Reporting Board (Agricultural Estimates Division of AMS) give the public vital information on farm commodities. The reports cover many subjects and include information on acreage, yield, and production of crops; numbers, production, and slaughter of livestock and poultry; production of milk and dairy products; stocks of commodities on and off farms; prices paid and received by farmers; and farm employment and wage rates.

The 42 State offices of the Agricultural Estimates Division serving 49 States, usually with the cooperation of the State Department of Agriculture or the State Agricultural College, collect most of the basic information used in making estimates and forecasts. They report directly to the Crop Reporting Board in Washington where State and National estimates are issued. Additional reports issued from the field offices provide more details on certain commodities, including those of local interest.

Some of the publications issued monthly by the Crop Reporting Board are:

Crop Production.--Contains acreage, yield, and production forecasts, and estimates of field crops and fruits, quarterly farm stocks of grains, milk and egg production.

Commercial Vegetables.--Covers acreage and production of vegetables for fresh market and for processing, by seasons.

Fluid Milk and Cream.--Reports supplies in important markets, prices paid producers, and prices at retail.

Evaporated, Condensed, and Dried Milk.--Shows production and prices.

Cold Storage.--Reports cold storage holdings of fresh and frozen fruits and vegetables, meat and meat products, dairy and poultry products, and fish products.



Livestock Slaughter.--Shows number of head and average live weight and total weight of livestock slaughtered in commercial plants.

Hatchery Production.--Estimates numbers of chicks and turkey poults hatched, and eggs in incubators and chick orders booked.

Agricultural Prices.--Besides containing prices received by farmers, the report shows prices paid by farmers for commodities used in living, including foods.

Some 500 reports are issued each year by the Crop Reporting Board. Most reports are issued on a periodic basis, such as the pig crop reports twice a year; grain stocks reports quarterly; and weekly reports on chick replacements in important broiler producing areas.

### Marketing Research

Marketing Research is directed toward improving the efficiency of the many services and functions required in moving food from the farm gate to the retail store such as assembling, packing, packaging, processing, transporting, storing, financing, wholesaling, and retailing. The research includes emphasis on market development, marketing economics, market quality, and transportation and facilities.

Market development research is designed to assist in maintaining and expanding domestic markets for agricultural products. Emphasis is given to (1) providing basic information on consumer preferences, buying habits, and other factors affecting consumption; (2) analyzing the economic feasibility of new and improved agricultural products, and making market tests to determine consumer acceptability of such products; (3) determining market potentials for new or improved products, products from new crops, and established products in new markets and uses; (4) providing data on markets including consumer purchases, distribution patterns, and availability of products; (5) evaluating merchandising and promotion programs; and (6) evaluating public distribution programs such as School Lunch and School Milk.

Marketing economics research emphasizes economic and cost analysis aimed toward (1) development of facts relating to marketing practices, channels, and organization (including economic integration), and their impact on competition and on costs; (2) measurement of changes in farm-to-retail price spreads on foods and fibers; (3) analysis of marketing costs in order to relate the cost of services to the services rendered; and (4) comparison of costs and the development of standards of efficiency which will aid farmers and marketing agencies in reducing marketing costs, or improving services and effecting economies in the use of resources.

Market quality research is concerned with the measurement, protection, and improvement of quality of food as it passes through the marketing system. Emphasis is given to physical, biochemical, pathological, and entomological problems; and the physical and biological evaluation of quality factors. The work of the Branch is directed toward the reduction of marketing costs through (1) improved quality and acceptability of farm products by reducing waste and spoilage due to insect infestation, microbial activity, and chemical and physical changes in commodities; (2) development of new devices and methods for determining and measuring product quality more accurately, quickly and economically; and (3) appraisal of the adequacy and the improvement of grades and standards and grading techniques.

Transportation and facilities research is directed primarily at reducing costs in the physical handling of agricultural products at all points in the marketing system. The research seeks to eliminate as many handling operations as possible, and with minimizing the costs of those operations which cannot be eliminated. It includes (1) the development of improved transportation facilities, loading equipment, methods and practices, and studies of transportation costs, rates, services, regulations, and legislation; (2) the

development and testing of all types of agricultural product containers and aids in container standardization; (3) development of improved designs and plans for marketing facilities of all kinds and at all levels in the marketing channel; (4) development of labor-saving devices and equipment and lower-cost handling and packaging equipment and methods at assembly, concentration and terminal points, and in all types of processing facilities; and (5) improved methods, equipment, materials, and layout of wholesale and retail establishments.

# DEPARTMENT OF DEFENSE

## Department of the Army

### Office of the Surgeon General

The Surgeon General under the direction and control of the Deputy Chief of Staff for Logistics is responsible for formulating medical plans, policies, and procedures and for providing and conducting programs to insure the health of the Army. Specific responsibilities in the field of nutrition are to prescribe basic standards of diet for the Army under the various conditions of its operation, and to report nutritional deficiencies wherever they occur, recommending the necessary corrective measures. The Surgeon General is also responsible for supervising the determination of the nutritional state of military personnel and others under Army control.

The Nutrition Branch, Preventive Medicine Division, formulates and supervises the execution of policies applying to nutrition as related to the health of the Army and others under Army control. It also (1) reviews the master menu and recommends changes to The Quartermaster General to insure that it provides a nutritionally adequate diet; (2) reviews and revises Army directives in the field of nutrition; (3) reviews research data in nutrition from governmental and other sources to determine their applicability to the Army; (4) provides technical advice and assistance to the US Army Medical Research and Development Command in nutritional matters; (5) advises the Personnel and Training Division on training in the field of nutrition; (6) advises other divisions of the Office of the Surgeon General on nutritional problems related to the care and rehabilitation of the sick and wounded; and (7) provides liaison with governmental and other agencies on nutritional matters.

The Research and Development Command in addition to exercising command control of the Medical Research and Nutrition Laboratory, monitors all research in nutrition performed by contract for the Army Medical Service.

The Medical Research and Nutrition Laboratory, Fitzsimons General Hospital, is a research, service, and training center for nutrition under the command control of the Research and Development Command. The mission of this laboratory is as follows: (1) To determine the nutrient intake of the soldier under various conditions in order to evaluate the adequacy of soldier's diet; (2) to assess the health, nutriture, and performance capacity of troops in all environments in order to ascertain whether they are as well fed, as healthy, and as fit as is compatible with the environment and military situation; (3) to develop and provide nutritional means for the prevention of and/or the optimal recovery from disease and injury; (4) to be in a position to observe and make recommendations on the nutrition of civil populations under military control; (5) to conduct research in nutrition and metabolism directed toward the fulfillment of these objectives.

### Office of The Quartermaster General

The Quartermaster General is responsible for the supply of food to all of the Armed Services and for furnishing staff and technical supervision for the preparation, service and conservation of food within the Army establishment, except for patient feeding at medical treatment facilities.



The Subsistence Division exercises staff coordination and staff and technical supervision, over the supply of subsistence in support of TQMG's mission and also provides staff and technical assistance to TQMG, higher authority, other Government agencies and overseas commanders, as required, on dietary, nutrition and special feeding matters. Provides staff and technical assistance with respect to subsistence inspection, quality control and specification requirements, and maintains liaison with the Office of The Surgeon General on Subsistence inspection, sanitation, and related matters. Exercises staff and technical supervision over assigned food and nutrition services functions of the Military Subsistence Supply Agency and the U. S. Army Subsistence Center.

The Research and Engineering Division exercises staff and technical supervision over the program of the QM Research and Engineering Command, Natick, Mass., which includes studies and analyses of climatic and environmental conditions as they relate to food and man's reaction and resistance to climate; studies of physiological reaction of man to food as it relates to acceptability; basic research on the physical, chemical and biochemical properties of food including the effects of food preservation processes such as dehydration and irradiation; development of suitable military rations in light of current military needs; and the preparation of specifications for food.

The Military Personnel and Training Division exercises staff supervision over the Food Service Training Program included in the curriculum of the Quartermaster School; exercises technical supervision over food serving training conducted by United States Army Training Center; reviews and coordinates the preparation of training publications, films and graphic aids used in training food service personnel.

The Military Subsistence Supply Agency, Chicago, Ill., is responsible for the procurement, inspection, storage and distribution of the wholesale food requirements of the Army, Air Force, Navy, and Marine Corps.

The U. S. Army Subsistence Center, Chicago, Ill., performs those Army retail supply management and food service functions necessary to assure sufficient supply and service of subsistence at U. S. Army installations on a worldwide basis. Determines how food will be prepared, how served, and the nature of the food service equipment and messing facilities to be utilized in effecting feeding. Prepares the Army-Air Force Annual Food Plan in coordination with the Department of the Air Force and as an adjunct thereto develops ration factors and ration scales, the Army-Air Force Master Menu and Special Purpose Menus prescribing what will be fed on a meal basis. Publishes Army cook and recipe books, field manuals and supply bulletins and otherwise assures the nutritional adequacy of the soldier's diet as well as its high acceptability and taste.

## **Department of the Navy**

### **Bureau of Medicine and Surgery**

The Bureau of Medicine and Surgery has the responsibility of safeguarding the health of the personnel of the naval service (Article 0430, U. S. Navy Regulations 1948). Medical officers of shore-based activities, forces afloat, and those on duty with the Marine Corps are responsible for making inspections and recommendations necessary to insure the quality and nutritional value of all rations served. (Articles 3-4, 4-16, 5-7, 22-13, Manual of the Medical Department. Articles 41281, 41297, 41590, and 41603, Bureau of Supplies and Accounts Manual.) Items of special diets prescribed by the medical officer in accordance with the Manual of the Medical Department shall be provided to patients in the naval service (Article 1940, U. S. Navy Regulations 1948).

The Preventive Medicine Division has as a primary function to advise, suggest, and recommend in matters concerning nutrition of Navy personnel under any and all circumstances as to maintain them at their maximum fighting efficiency, to prevent nutritional deficiencies, and to maintain the highest morale. It also has authority (1) to initiate and/or



conduct nutritional surveys and research; (2) to advise and assist in the training and educating of all naval personnel whose duties involve the planning, preparing, and serving of meals; and (3) to obtain and coordinate all information on nutrition which may be used in carrying out the functions of this agency.

Food Service Branch, Hospital Administration Division, coordinates the administration of food service divisions in naval hospitals. Studies and analyzes hospital food service functions, develops standards and policies, provides technical advice and consulting services to naval hospital food service divisions.

Navy Medical Department Food Service Council serves in an advisory capacity to the Chief of the Bureau of Medicine and Surgery on matters pertaining to food service in naval hospitals.

At the Federal level, the Bureau of Medicine and Surgery consults with other Bureaus of the Navy and other governmental agencies with regard to nutritional matters. Also, medical officers advise the commanding officers on nutritional matters. In the United States, medical officers maintain liaison with State and local health departments on matters of nutrition. In foreign countries, medical officers seek and obtain all possible information on nutrition which may benefit naval personnel.

The Bureau prepares and distributes directives, recommendations, and other communications regarding nutrition. The following publications, although not wholly concerned with nutrition, disseminate newer knowledge or stress well-known facts on nutrition whenever possible: U. S. Navy Medical News Letter; U. S. Armed Forces Medical Journal.

#### **Bureau of Supplies and Accounts**

The Navy Ration Law, (10 U. S. Code 6082) prescribes the daily food allowances to which each person in the Navy is entitled. Navy Regulations (Article 0451) assign to the Bureau of Supplies and Accounts, the supply responsibility for all Navy general messes except hospital general messes. The Bureau of Supplies and Accounts Instruction 5450.77A of 16 June 1958, assigns supply and technical control for Navy general messes to the Navy Subsistence Office.

For nutrition and food service, the responsibilities of the Navy Subsistence Office are as follows: (1) Administers the Navy Ration Law; (2) exercises technical control over the operation of general messes, except hospital messes; (3) promulgates menu planning and food service information and publishes operating guidelines for management and supervisory personnel in general messes; (4) publishes the standard Navy Recipe Service and coordinates Navy recipe development work with the U. S. Naval Supply Research and Development Facility, Bayonne, N. J., and the Food Advisory Committee of the National Security Industrial Association; (5) directs the operations of Field Food Service Teams in conducting on-the-job demonstrations and training in food preparation and service; (6) assists the Bureau of Naval Personnel through technical review of curricula, training manuals, and courses of instruction in all phases of mess administration and food preparation; (7) provides Navy representation in Department of Defense subsistence standardization and cataloging programs; (8) coordinates Navy development, review, and revision of food specifications; (9) requests commodity research and development for Navy subsistence; and (10) provides dietary and technical staffing for general mess feeding programs, along with technical liaison on nutrition and food service with other Government and industrial agencies.

In addition to the standard Navy Recipe Service, and on-job food service and subsistence references for commissary personnel, the Navy Subsistence Office provides a monthly publication, "Navy Food Service," for distribution to supply and commissary personnel of all ships and stations.

## Department of the Air Force

The primary mission of the Air Force nutrition program is the maintenance of the general health, physical status, and efficiency of its personnel through the establishment and maintenance of adequate nutritional standards. Regulations define the scope of the entire food and nutrition program and delegate responsibilities to the appropriate agencies.

The major functions carried out by appropriate personnel of the Medical Service and the Directorate of Supply and Services are as follows:

### Medical Service

1. The Surgeon General, USAF (AFCSG), has the responsibility of safeguarding the health of USAF personnel and for carrying out Department of Defense medical directives, such as providing assistance to the Interdepartmental Committee on Nutrition in National Defense.

2. The Preventive and Occupational Medicine Branch (AFCSG 11.2), Office of the Surgeon General has as a primary function to advise, suggest, and recommend in matters concerning nutrition of USAF personnel under any and all circumstances so as to maintain them at their maximum fighting efficiency, to prevent nutritional deficiencies and to maintain the highest morale. They establish standards of sanitation for the operation of all feeding facilities, such as those in hospitals, exchanges, clubs, inflight kitchens, and troop food service facilities.

3. Air Materiel Command Surgeon is represented on the Army-Air Force Master Menu Board which reviews and approves master menus and recipes, evaluates subsistent items, and insures that master menus meet nutritive requirements.

4. Medical officers are responsible for making inspections and recommendations necessary to insure the quality and nutritional value of all rations served and for assisting in the instruction of personnel in the fundamentals of nutrition. Items of special diets prescribed by the medical officer shall be provided to USAF patients.

5. Dietitian. Normally, the dietitian assigned to Air Force hospitals is also designated the food service officer. In that capacity, the dietitian is responsible for organizing, managing, and operating the medical food service activity. Preparation of the weekly hospital menu, planning of modified diets as ordered by the physician, and providing modified diet guidance to inpatients and outpatients are responsibilities of the dietitian.

6. Aero Medical Laboratory conducts nutrition studies, such as feeding requirements for long-range, high performance aircraft, flight and survival foods, and space feeding.

### Directorate of Supply and Services

The responsibilities of the Directorate of Supply and Services (AFMSS) concerning the Food Service Program are as follows: Formulate policies and plans for conducting the Air Force Food Service Program; Review, evaluate, and adjust policies and program direction to meet changing requirements; Issue directives prescribing the policies of the Air Force Food Service Program.

### Air Materiel Command

Headquarters Air Materiel Command's responsibilities concerning the Food Service Program are as follows: Provide technical guidance for the Air Force Food Service Program; Develop procedures to implement the policies and to meet the objectives prescribed by Headquarters USAF, Develop manuals, layout and functional plans, and

operating directives and regulations for approval and publication by Headquarters USAF; Coordinate with the responsible agency in preparing, revising, and reviewing specifications for food service equipment; Review and approve new or revised subsistence specifications; Maintain liaison with comparable activities of other Government agencies, as required to perform the assigned mission; Study and develop the techniques and procedures for the conservation of food; Develop jointly with the Department of the Army, the annual ration factor requirements for procurement and planning purposes for continental United States; Provide full representation on the joint Army-Air Force Master Menu Board; Develop Air Force special feeding programs and menus, as required; Review, evaluate, and approve annual food plans and ration factors submitted by oversea major air commands and separate requisitioning activities; Monitor the Air Force Flight Feeding Program; Conduct acceptability studies world-wide to determine changes in requirements; Prepare, publish, and distribute the Food News.



# DEPARTMENT OF THE INTERIOR

## Bureau of Indian Affairs

### Branch of Education

The Branch of Education, Bureau of Indian Affairs, operates under an annual Education and Welfare Services appropriation from the Congress and is responsible for the education of over 41,000 children or 29.5 percent of all Indian children in schools. The Bureau also operates 17 dormitories for 3,169 Indian students who attend public schools away from their homes. Approximately 83 percent of all Indian children who attend Federal boarding or day schools, or are housed in federally-operated dormitories, are full-blood Indians. Only 2.9 percent are less than one-half Indian. In addition, the conduct of an education program for adult Indians in 80 reservation communities is an activity of the Branch of Education.

Problem.--The nutrition of Indian people is a major concern in most areas. Factors which combine to create a serious nutritional problem among Indian groups are: (1) low-economic status of many Indian families, (2) climatic conditions which preclude the production of milk, eggs, fruits, and other foods essential to good nutrition, (3) distances of homes from stores and markets where foods can be purchased at prices which prevail in competitive locations, (4) lack of knowledge of fundamental food requirements, and (5) to some extent, cultural food taboos.

School Program.--Many Indian children come from homes where there has never been an adequate diet. The schools' aim in nutrition is to (1) provide diets for the children that will help to overcome their nutrition deficiencies and will bring their health status up to an optimum level, (2) encourage children to eat sufficient quantities of a variety of foods both familiar and unfamiliar, (3) to teach the essentials of good nutrition in all classes so that students will develop an understanding of what constitutes good nutrition and will know how it can be provided for them and their families with the foods they can purchase or produce.

Every child has a thorough health examination upon entering school. Thereafter a monthly weight chart is maintained to show progress of the individual child. In the boarding schools and dormitories three meals a day are served. In the day schools a noon meal is served which is equivalent to dinner and is planned to supplement the home diet. The children are introduced to a variety of foods and are encouraged to eat at least a portion of each food to insure the consumption of a well-balanced diet that will help overcome nutritional deficiencies.

Adult Education Program.--The adult education program which the Bureau operates on Indian reservations has as its primary objective the raising of the general educational level of Indian adults. It is recognized, however, that even language and numerical skills must be taught in relation to the basic life needs of people. Bureau educators feel that these basic life needs can be grouped in about seven learning areas. In two of these, particularly Health and Safety, and Home and Family Life, the subject of nutrition receives attention. Specific learning goals and special learning materials with respect to nutrition have been developed. In addition, at several locations County Home Demonstration Agents work cooperatively with the Bureau's adult teachers in bringing an understanding of good nutritional practices to Indian adults.

Personnel.--Every member of the school staff and each adult education teacher shares responsibility for the nutrition program. In the Bureau's largest area the feeding program is an Area Office responsibility, and the planning of a master menu, the procurement of foods to carry out the menus, the delivery of foods to each station on a biweekly basis, and the training of food handlers are supervised by a director and his staff. The eventual objective is to have the feeding program carried out similarly in all areas. Where this is not possible, the program in each school is supervised by a department head (home economics), an educational specialist (home economics), or a home economics teacher.

Nutrition is taught not only in home economics, agricultural, physical education and adult education classes, but in academic classes of the grades as well. Copies of the daily menus are sent to each classroom where the teachers discuss with the students the foods that will be served, why it is important to eat a portion of each food, the value of each different food to good nutrition, and encourage the students to develop good food habits.

Publications.--The publications, Minimum Essential Goals for each grade and Minimum Essential Goals for Everyday Living incorporate nutrition goals and standards that are used as guides in the regular school program. Some bulletins especially prepared for use with the children and in the adult education program are: Good Food Habits, What Happens to the Food I Eat, Dinner Time, and What We Eat.

Conferences, Workshops, and Summer Schools.--Conferences on nutrition of national scope are attended occasionally by the at-large supervisors. Conferences are held regularly within the service by the supervisory and teaching staffs. Each year, workshops and summer schools are held where the workers in the field come for further training and study.

#### Branch of Land Operations--Extension

Home Extension Activities.--Through the appropriation Resources Management, funds are provided for home extension agents who assist families, particularly homemakers and 4-H Club girls, in the practical application of scientific information so that their families may be properly and adequately fed. The Bureau of Indian Affairs has contractual arrangements with 16 States wherein the States are to furnish extension services to Indians. The Bureau of Indian Affairs also has an agreement with the Federal Extension Service for them to assist these States, as well as the Bureau of Indian Affairs' Extension workers in other States, with technical advice and guidance in program development.

General Objectives.--Improvement of the nutritional status of Indians by helping families (1) understand the relation of food to health, (2) produce adequate food supplies, (3) select foods for an adequate diet, (4) follow good food habits, (5) buy food wisely, (6) prepare and use homegrown food wisely.

Program.--Programs are planned cooperatively by the Indians and Extension Service personnel. Included are: (1) Family needs--knowledge of amounts and kinds of foods needed for an adequate diet; (2) management--how to produce, buy, prepare, preserve, and store foods to get the most for the money spent; (3) good habits--understanding of attitudes toward foods and a recognition of the customs, religions, and fallacies in relation to foods; (4) special food needs--relation of food needs to particular conditions or disease such as feeding older people or needs of diabetics.

How the Home Extension Program Operates.--At the Federal Office level, develops policies and procedures for carrying out improved farm and home practices with Indian families, an important part of which is encouraging the production and conservation of homegrown foods for better nutrition, and advises area staffs in the execution of these programs.



At the Area Office level, guides reservation staffs in the overall program and helps keep workers current on policy and subject matter through conferences, demonstrations, and training sessions. Serves as liaison with other Federal, State, and local groups in coordinating activities.

On 13 Indian Reservations, the Bureau of Indian Affairs employs trained home economists who advise and work with individual families in the development and execution of farm and home plans and projects which provide for production and conservation of an adequate food supply to meet family needs. These agents also emphasize production, preservation, buying, and storing of foods, along with the use and care of equipment for these processes. They encourage, advise, and train Indian youth in 4-H Club activities, with emphasis on food projects conducted according to State requirements.

Bureau home extension agents translate into everyday language the scientific findings that apply to the home and make them available through demonstrations, meetings, home visits, visual aids, conferences and workshops. These agents cooperate with other agencies and organizations in developing and conducting nutrition programs with the aim of preparing Indian families for understanding of and participation in the food problems of their communities and country to the extent that special services will not be needed.

## **Fish and Wildlife Service**

Technological Program.--Federal technological fisheries research was inaugurated during World War I in response to an evident need. Major fishery technological laboratories are located in Boston, Mass., College Park, Md., Pascagoula, Miss., Seattle, Wash., and Ketchikan, Alaska. Smaller stations are also located in Ann Arbor, Mich., and Terminal Island, Calif. The research activities of these laboratories and stations deal with the development of methods of handling, grading, utilizing, and preserving fishery products; studies on problems of plant sanitation and operation; the nutritional value of fishery products; advisory and consulting services on all phases of fishery technology for industry. Examples of investigations on fishery food products conducted in these laboratories are: (1) determining composition and nutritive value of marine and fresh-water fish and shellfish; (2) development of voluntary U. S. standards of grade and condition of fishery products for use of a nationwide inspection service; (3) improving quality of fish delivered at shore plants by developing methods of freezing fish at sea; (4) determining the keeping quality of frozen fishery products; (5) determining keeping qualities of precooked and breaded fishery products; (6) developing new food fishery items and methods of utilizing the underutilized species of fish; (7) evaluating growth factors in fishery products used in chicken rations. Some work is carried out cooperatively with universities, trade organizations and private concerns.

Under the supervision of these laboratories is an extensive and widely accepted voluntary program of inspection and grading of fishery products according to specific quality standards. Inspectors are located in many plants throughout the country which process breaded shrimp, fish sticks, fish fillets, and other fishery products. Inspectors are also located in several large metropolitan areas to grade and certify as to the quality of fishery products in the channels of distribution.

Technological research results are disseminated through technical and semitechnical reports, bulletins, and leaflets; the Service journal, Commercial Fisheries Review; appropriate trade and technical journals, demonstrations and addresses to scientific societies, trade organizations, schools, and civic groups; and press releases.

Economics Program.--Special fish and shellfish consumption surveys are conducted. Analyses of the effects of demand and supply factors on the level of consumption of fish and shellfish and of individual commodities are made. In addition, relationships to total food consumption are calculated. Studies of various types to determine the extent and nature of consumer demand for fish and shellfish products are carried out.



Fishery Educational and Market Development Program.--A fishery educational and market development program is conducted to "promote the free flow of domestically produced fishery products in commerce" and "to develop and increase markets for fishery products of domestic origin." This activity was first authorized on August 11, 1939, by Public Law 393. Primary emphasis is placed on the nutritional values and economy of fishery products with the purpose of obtaining full use of this natural resource to improve the nutritional standards of the American consumer.

Research on the nutritive value and proper utilization of fishery products is conducted in test kitchens located at College Park, Md., Seattle, Wash., and Pascagoula, Miss. Tested recipes are developed and published for school-lunch, institutional, and homemakers' use.

Consumers are directly given greater practical knowledge of fishery products and their use by: (1) Fish-cookery demonstrations for school-lunch and institutional personnel, schools of the Quartermaster Corps, home economics classes, etc.; (2) producing and distributing fishery educational motion pictures; (3) press, radio, and television. Field offices are maintained in various sections of the country to carry out these functions. Cooperation on the program is obtained principally from the U. S. Department of Agriculture, State departments of education, and various branches of the Armed Services.

The principal publications are (1) Quarterly Commercial Fisheries Outlook, a forecast of the future trends in the marketing of fishery products; (2) the Test Kitchen Series, which deals with the cooking of various fishery products; (3) special marketing bulletins.

Market News Service.--The Fishery Market News Service is to the fishery industries what the Agricultural Market News Service is to agriculture. This activity was started in 1938 to aid in the orderly marketing of fishery products and byproducts. The first funds for this activity were provided by the 75th Congress for "collecting, publishing, distributing, by telegraph, mail, or otherwise, information on the fishery industry, information on market supply and demand, commercial movement, location, disposition, and market prices of fishery products. . . ." Field offices are in operation in New York City, Boston, Seattle, Chicago, New Orleans, San Pedro, and Hampton (Va.). They collect, publish, and distribute current information on market conditions in the fishery industries on a daily basis in order to aid in the proper distribution and price appraisal of fishery products and byproducts. Port reporters located at principal ports in their respective areas aid in the collection of this information.

Daily mimeographed "Fishery Products Reports" (as well as monthly and annual summaries) issued by these field offices are disseminated free to producers, wholesalers, retailers, importers, exporters, brokers, and consumers. Mail, radio, telephone, personal contact, telegraph, and teletype are used to disseminate the data collected. For quick exchange of data, the field offices and the Washington office are connected by teletype service.

The Market News departmental office in Washington, D. C., in addition to supervising the activities of the field offices, edits and is responsible for the publication of the monthly periodical, Commercial Fisheries Review. This publication features articles on the fisheries, news of trends and developments in the fishery industries, Federal Government orders and rulings affecting the fisheries, and other items of interest to the fishing and allied industries.

# DEPARTMENT OF LABOR

## Bureau of Labor Statistics

The Bureau of Labor, the predecessor of the Bureau of Labor Statistics, was established in the Department of the Interior on June 27, 1884. After several changes in status, it became, in 1913, the Bureau of Labor Statistics of the newly created Department of Labor. It is the Government's principal factfinding agency in the field of labor economics, particularly with respect to the collection and analysis of data on employment and manpower developments, wages, industrial relations and accidents, price trends, and costs and standards of living.

The Bureau has no enforcement or administrative functions. Practically all of its basic data are supplied through voluntary cooperation. The information collected is confidential and is issued in summary form in special bulletins and in its official publication, the Monthly Labor Review.

Consumer Price Index.--The Consumer Price Index (formerly known as the Cost of Living Index, which was begun in World War I) is a measure of average changes in retail prices of a fixed market basket of goods, rents, and services of constant quality purchased by families of urban wage earners and clerical workers in the United States. There have been four major revisions of the index, the last of which was completed in January 1953. Since January 1953, the index has been based on a sample of 46 cities representative of all cities of 2,500 or more persons.

Indexes are computed regularly for all items of consumption combined, for the major consumption groups (i.e., food, apparel, etc.), and for food subgroups (i.e., cereals and bakery products, etc.), for each of 20 selected large cities and for all cities combined.

The Bureau collects retail prices for about 300 goods, services, and rent, and uses these prices to represent the price movement of all goods and services. In order to hold constant the quality of the items priced from period to period, the Bureau has drawn up detailed specifications describing each item. Prices used are obtained in each city on a regular pricing cycle at intervals ranging from once every month to once every 3 months. These prices are collected in the most part by field representatives through actual field visits to retailers.

The prices of index items are combined by value weights which represent the distribution of expenditures as reported in periodic surveys of family spending. These surveys are discussed below. Weights currently represent the estimated 1952 distribution of expenditures; weights prior to January 1950 represent the 1934-36 distribution of expenditures.

In July 1959, the Bureau initiated a 5-year program to revise the index. This program provides for the introduction of new expenditure weights, revised samples of cities, outlets and items for pricing, and improved methods of data collection and processing, with publication of the revised index by January 1964. The new weights will be obtained from surveys of consumer expenditures in approximately 70 cities which will be conducted in the spring of 1961 and 1962. Expenditure data will relate to the years 1960 and 1961.

Studies of Consumer Expenditures, Income, and Savings.--Studies of consumer expenditures were among the earliest projects undertaken by the Bureau of Labor Statistics, the first being conducted in 1888. Prior to 1935 the surveys were limited to studies of wage earner and lower salaried groups.



Recent studies have covered the entire noninstitutionalized population in the areas surveyed, in recognition of the importance of comprehensive studies of consumer expenditures, income, and savings as a source of basic information for studies of level and standards of living, nutritional adequacy, measurements of comparative living costs, marketing research, governmental planning, and other fields of economic and social research. In the past two decades the Bureau has made a number of such surveys.

1934-36. Study of Money Disbursements of Wage Earners and Clerical Workers, the basis for the 1940 weight revision of the Consumer Price Index.

1935-36. Consumer Purchases Study, a national survey in cooperation with the Department of Agriculture, the Works Progress Administration, and the National Resources Committee.

1941-42. Survey of Spending and Saving in Wartime, a national study conducted by the Bureau of Labor Statistics and the Bureau of Human Nutrition and Home Economics of the Department of Agriculture.

1944. A national urban study in more than 100 cities and towns.

1945-49. From 1945 to 1949, expenditure studies were conducted in 13 individual cities.

1950. Survey of Consumer Expenditures, a nationwide survey in 91 cities, the basis for the 1953 index revision.

Standard Budgets and Comparisons of Living Costs.--The City Worker's Family Budget, developed in 1946-1947 and last priced in October 1951 in 34 large cities, was designed to determine how much it costs a 4-person urban family to obtain the goods and services it requires to maintain a "modest but adequate" level of living according to prewar standards prevailing in large cities in the United States.

The Elderly Couple's Budget, based on similar standards of adequacy, was developed in the Social Security Agency in 1947 and last priced by the Bureau in October 1950 in the same 34 large cities.

These budgets provide a measure of the adequacy of family income. They also provide a general measure of the differences in living costs among cities.

The Bureau is currently working on a more up-to-date budget for a 4-person family, as well as for an elderly couple. The revised budgets are based on postwar standards and expenditure data. Estimates of the dollar cost of these budgets for 20 large cities will be published in 1960.

## ATOMIC ENERGY COMMISSION

Under Public Law 585, 79th Congress, the Atomic Energy Commission is directed to support research on radiation injury and its therapy, as well as on the application of radiation and radioactive materials to the study of problems in biology and medicine. This research is handled largely through the Division of Biology and Medicine and is carried out at AEC National Laboratories and other installations and through contracts with numerous universities and medical schools.

Considerable work is being supported relating the dietary state of animals and their response to radiation. A deficiency of certain nutrients apparently increases susceptibility to radiation. Much research is being conducted in order to establish the details of the flow of certain elements in the food chain from the environment to man.

Radioisotopes are an extremely important tool for research in the nutrition and metabolism of both plants and animals. The AEC has made radioactive isotopes of a number of biologically important elements available to universities and hospitals and to other Federal agencies engaged in nutritional research. In addition, large amounts of basic research are being supported in soil chemistry, the uptake of minerals from the soil by plants, photosynthesis and other metabolic activities of plants, digestion and absorption of foods in animals, and the intermediary metabolism of both plants and animals.

As part of its program in genetics, the AEC is supporting considerable cooperative research on the radiation genetics of plants of agricultural importance. The purpose has been to use radiation-induced mutations as a basis for developing improved varieties of crops. This work has already led to the commercial introduction of an improved peanut variety, and a number of other radiation induced mutants appear to offer great promise.

The AEC through its Division of Biology and Medicine and Office of Isotopes Development has just begun a modest program in the use of ionizing radiation to lengthen the shelf life of foods important in the civilian economy. The program, which is expected to last approximately 5 years, is designated to determine the feasibility of lengthening shelf life of such foods as fresh fish, fresh pork, certain fresh vegetables, etc., through the use of low levels of ionizing radiation. This program supplements (and is in contrast to) the Army program which is directed toward the use of sterilizing doses of radiation for long term storage of food.



# DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

## Office of Education

The original enabling act, passed by Congress in 1867, created the Office of Education "for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information, respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country."

Under this broad assignment the Office of Education needs to concern itself with all types of educational development. Thus it is concerned with the study of nutrition education and school lunches, and the gathering and dissemination of information concerning developments in these areas.

The original function of the Office has been broadened from time to time by legislation providing for additional responsibilities, such as for vocational education. The Smith-Hughes Act, passed in 1917, provided Federal financial aid to encourage the States to develop vocational education in such specialized fields as agriculture, trades and industry, and home economics. The George-Barden Act of 1946 and Title VIII of the National Defense Education Act of 1958 provide for the further development and extension of vocational education. Vocational education, through its activities in the fields of agriculture and home economics, has been concerned with the development of sound programs of nutrition education in public secondary schools. A great deal has been done through the Future Farmers of America and the Future Homemakers of America, integral parts of the public school program. These groups have sponsored, individually and cooperatively, projects to improve food production and conservation, and family nutrition and health.

Objectives and program in nutrition education.--If the health of a nation is to be improved, good nutrition practices must be increasingly emphasized through an effective program of education. The Office of Education is concerned with improving nutrition of people through education in the school and community; it works through State departments of education in improving programs of education and with institutions engaged in preparing teachers for elementary, secondary, and adult teaching. Nutrition, like other aspects of education, should be taught in a functional way as a part of the total school program. Every activity of the school that is concerned with food should emphasize nutrition education. Such activities may be related to home and family living, agriculture, science, health, social studies, and the school lunch program itself.

The general objectives toward which the Office of Education works are: (1) Increasing understanding on the part of children, youth, and adults of the requirements of an adequate diet and of the importance of one's diet to health and well-being; (2) appreciation of the cooperation needed to make food available to people; (3) understanding of the relation existing between waste of food and waste of human labor; (4) wider use of the school lunch program as an educational instrument for improving the health of families in the community; (5) more extensive cooperation of the whole school staff in providing nutrition education that affects the everyday food practices of the people of the community; and (6) improving the school facilities needed to effect these objectives.

Each community determines its own educational needs and works on its nutrition problems in ways that are most practical for the persons involved. When the school

recognizes the importance of nutrition in its total education program, it finds ways to attack these problems. This may be done through health education, home economics, agriculture, science; through learning units organized around the problems of living at elementary and secondary levels; and through the school lunch. It is important to develop nutrition education in such a way that it becomes a vital part of the total program of education in the school and community. Programs of instruction constantly undergo examination and revision in order to insure effective home and community practices in nutrition.

Functions and activities related to nutrition education.--In general, the Office carries on its functions in the field of nutrition education and school lunch in the same way that it carries on in other specialized fields of education:

1. It gathers statistics, analyzes reports from school systems, and makes special studies.

2. It diffuses information through publications, conferences, field services, correspondence, addresses, and consultant services.

3. Its staff participates, upon invitation, in workshops, in summer schools, and in conferences called by State Departments of Education, colleges, universities, and State and national educational and health organizations. These activities are concerned with problems of nutrition education in the general fields of elementary and secondary education, in health, science, and home economics. Through the work of the Office of Education staff objectives, programs, and instructional materials relating to nutrition education in the school curriculum--elementary, secondary, and adult--are evaluated and improved.

4. Through its specialists the Office consults and cooperates with other departments and agencies of the Federal Government on a wide variety of problems and programs, including nutrition education and the school lunch.

5. Assistance is also rendered to other countries in their development of educational programs in nutrition and health. This includes consultation with educators from other countries who have come here to study in colleges and universities and to observe methods of improving nutrition education and school lunch programs in schools and communities.

6. Its staff prepares bulletins, pamphlets, bibliographies, and articles for School Life and other professional magazines.

## Public Health Service

### National Institutes of Health

Under the general authority of Public Law 410, 78th Congress, Section 301, laboratory, clinical, and field investigations in nutrition are conducted. Additional nutrition research is supported financially through a program of research grants and fellowships. These programs are concentrated for the most part in the National Institute of Arthritis and Metabolic Diseases.

Laboratory Studies of a fundamental nature utilize animals, microorganisms and chemical and physical methods to investigate the function and interrelations of vitamins, amino acids, minerals and other nutrients; the pathology, abnormal physiology, and biochemistry of deficiency states; hormonal influences in nutrition; the role of nutrition in specific types of disease such as cancer, radiation damage, heart and vascular diseases, the anemias, arthritis, diabetes, liver diseases, obesity, and various abnormalities of metabolism. Searches are made for new vitamins and accessory factors which are isolated, identified, and studied as to their physiological role. Investigations are carried out on the relation of dietary factors to the development and prevention of dental



caries and peridental disease, to the development of the skeleton and the initiation of bone diseases, and to the absorption and retention by the body of radioactive substances. The nutritional requirements and the physiological peculiarities of germ-free animals are under investigation. Studies are conducted on the biological synthesis, degradation, metabolism and excretion of amino acids, vitamins, carbohydrates, and nucleic acids. The biochemical reactions involved in these studies receive special emphasis. The influence of the central nervous system on metabolism and nutrition is investigated.

Clinical Studies follow developments in the laboratory which offer promise of practical application to man. Current studies include the role of the diet in the development and cure of diabetes, as it occurs in humans and is produced in experimental animals; the metabolic relation of substances such as calcium and hexosamine to osteoporosis, arthritis and other collagen diseases; the relation of nutritional factors to various disorders of the gastrointestinal tract including the electrolyte disturbances in cystic fibrosis of the pancreas; the total energy metabolism of healthy normal- and over-weight subjects; the relation of lipid metabolism and transport to atherosclerosis; the treatment of various metabolic disorders such as phenylketonuria by dietary means.

Field Activities include studies of: The role of salt and water in the treatment of burn shock; the possibility of reducing the incidence of dental caries in children by dietary supplements; and the growth and development of Indians. In selected instances consultative service is provided in the conduct of nutrition surveys in this country and abroad, and in the conduct of nutrition workshops, institutes, and other training programs. Consultative and advisory services are provided to certain Federal agencies such as the Federal Civil Defense Administration.

The Interdepartmental Committee on Nutrition for National Defense (ICNND) was established in 1955 by memorandum of agreement by the Departments of Defense; State; Agriculture; Health, Education and Welfare; plus the International Cooperation Administration and later the Atomic Energy Commission. Its purpose is to deal with nutrition problems of technical, military and economic importance in foreign countries where the United States is providing assistance. Nutrition surveys have been made in Iran, Pakistan, Turkey, Libya, the Philippines, Korea, Spain, Ethiopia, Peru, and Ecuador, on request from the governments of these 10 countries. A nutrition survey of the Alaska Eskimo and Indian population was conducted in cooperation with the U. S. Arctic Health Research Center. Personnel for the nutrition surveys, approximately 10 for each survey, including physicians, biochemists, nutritionists, food technologists and agriculture economists, have been provided by 20 U. S. educational institutions and 12 governmental and private agencies.

A Manual for Nutrition Surveys has been prepared to serve as a detailed guide for conducting surveys. Copies are available from the Government Printing Office. Reports of the surveys with appropriate recommendations have been published and distributed to the countries concerned and interested agencies in the United States. These are available from the Secretariat.

The surveys are administered by a secretariat, located at the National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, Bethesda, Maryland.

Research Grants in support of research in nutrition during fiscal year 1959 numbered 243 grants amounting to \$3,714,805. These funds were for studies in universities and other non-Federal institutions of nutritional deficiency diseases, of nutritional factors in other disease states such as cancer, heart disease, etc., and to support basic nutritional studies not related to a specific disease.

#### Bureau of State Services

Under the provisions of Public Law 410, 78th Congress, Sections 301, 311, and 314 (as amended), the Public Health Service has a number of programs directed to the control of various diseases and to milk and food sanitation.

Heart Disease Control and Chronic Disease Program utilize staff consultants for nutrition services. The services of nutritionists are made available to State and local health departments, voluntary agencies, professional associations, colleges and universities, hospitals, nursing homes and private institutions with regard to: (1) Planning and/or participating in special studies involving the nutrition of chronically ill, the aged, welfare recipients, persons in institutions and the like; (2) planning and/or participating in workshops, institutes, etc., for professional people; (3) assistance in planning, developing, and evaluating professional educational materials and teaching aids; (4) assistance in planning, developing, and appraising present community nutrition services and programs for chronically ill and aged.

Field Study Activities: (1) Nutritionists are or may be assigned to State and local health departments to assist in the development of nutrition activities pertinent to the overall objectives of a specific chronic disease program. (2) Nutritionists are or may be assigned to special study and research projects in public and private health programs.

Milk, shellfish and food service sanitation activities include: (1) Field studies and investigation of technical problems necessary to the development of control procedures, techniques, and sanitation standards; (2) program for certification of interstate milk and interstate shellfish shippers; (3) development of model sanitation standards and training manuals for the guidance of States, municipalities, and industry; (4) technical, consultative, and advisory assistance to State and local health authorities, the milk, shellfish and food industries, Federal agencies, and others; (5) equipment studies and investigations relating to (a) the development of sanitation standards for design, construction, and operation of various items of milk and food equipment, and (b) the evaluation of items of such equipment against published standards of the Public Health Service; (6) inspections of sources of food supplies and food service facilities of interstate carriers, Federal prisons, PHS hospitals, and National Parks.

Current research projects are concerned with: Development and evaluation of analytical procedures, including rapid methods for the detection of disease organisms and bacterial toxins in prepared foods; studies on the sanitary bacteriology of various species of shellfish; and investigation of new processes and analytical procedures, including development of improved physical, chemical and microbiological procedures for determining the sanitary quality of fluid milk and certain milk products.

The cooperative State-Federal (PHS) program for the certification of interstate milk shippers was initiated in 1951 at the request of the Association of State and Territorial Health Officers. The basic objective of this activity is to assist State and local health authorities in milk shortage areas to obtain reliable data on the sanitary quality of fluid milk shipped into their jurisdictions from out-of-State sources, without the necessity of inspecting milk supplies in distant States. At present, 36 States and approximately 700 shippers participate in this activity. Similarly, the Service participates with the States in the voluntary program for the certification of interstate shellfish shippers. This program requires annual evaluation of the shellfish sanitation and growing water control program of each of the 22 shellfish producing States, and periodic spot check inspections of both shellfish plants and growing areas.

Sanitation standards are developed by the Public Health Service as part of its advisory service for milk, food establishments, frozen desserts, and shellfish. These standards are recommended for voluntary adoption by States, counties, and municipalities. At the end of fiscal year 1959, the Milk Ordinance and Code formed the basis for the milk regulations of 36 States, in 16 of which they were being enforced State-wide. They had also been adopted by 1,424 municipalities and 490 counties, with a total population coverage of over 63 million. The recommended standards for food establishments form the basis of law or regulation in 37 of the States and the District of Columbia, and were being enforced State-wide in 38 of the States. They had been adopted by 774 municipalities and 377 counties, with population of more than 98 million.



Training of State and local sanitarians is conducted by the Public Health Service through personal contacts, regional seminars, and inservice training courses; through technical and educational materials prepared for training sanitarians and food service and dairy employees; and through demonstration schools. In addition, the Public Health Service makes surveys of State and local conditions upon request; and consults with equipment manufacturers and food industry representatives on the sanitary design and construction of milk and food equipment.

Defense activities are consultative and advisory to meet demands for assistance with problems arising from national defense activities.

#### Bureau of Medical Services

Under the provisions of Public Law 410, 78th Congress, Section 321, the Public Health Service operates hospitals and outpatient facilities; under Public Law 568, 83rd Congress, it carries on the Indian health program; and under Title VI of the Public Health Service Act conducts the Hospital Survey and Construction Program.

Division of Hospitals.--The U.S. Public Health Service hospitals vary in size from 80 to 1,050 beds. The general medical and surgical hospitals provide treatment similar to that offered private patients in community hospitals. The U.S. Public Health Service hospitals at Lexington, Ky. and Fort Worth, Tex. are for the care of narcotic addiction and other neuropsychiatric disorders. Persons with leprosy receive treatment and rehabilitative services at the U.S. Public Health Service Hospital, Carville, La.

The Dietetic Branch of the Division of Hospitals is responsible for providing leadership and guidance in all phases of dietetics and nutrition for the USPHS hospitals and outpatient facilities, including an approved dietetic internship for 12 qualified college graduates. The Division's total dietetic and nutrition program represents a cooperative effort between the headquarters office and the hospitals and clinics in the field.

The Dietetic Branch located at Division headquarters in Washington serves as staff consultant and advisor to the Chief of the Division of Hospitals on dietary program content, operational policies, standards, progress, staffing, physical facilities, personnel, etc.; coordinates the dietary program with others in the Division; directs the staff development program for dietary personnel; and coordinates the career development program with other Divisions and Bureaus of the Public Health Service.

This Branch also provides professional leadership and guidance to the dietary activities at hospitals and clinics in the development and maintenance of effective and economical dietary policies and practices, consistent with approved techniques and principles of good nutrition and dietary administration. Appraisal of the programs is accomplished through reports from the stations as well as through field visits to review programs, evaluate progress, and determine needs. Recommendations and/or assistance are provided to the field concerning the organization of the service; the methods and procedures for operation; the revision in policy and procedure to meet changing demands of the programs; the development and conduct of staff development programs, educational programs, dietetic internship program and research studies designed to promote effective operation of the dietetic service and improve patient care.

Authority to administer the program at the station level is given to the Director of Dietetics who is accountable to the Medical Officer in Charge of the hospital. In this capacity the Director is responsible for the institution and conduct of all functional elements concerned with the planning, operation and effective direction of the hospital dietetic program. The dietitian serves as a recognized member of the medical team and is the professional adviser in dietetics and nutrition. The organization of the service encompasses management appraisal; coordination of functions; policy and procedure development; budget requirements for subsistence, equipment, supplies and personnel staffing; allotment controls and economical expenditure of funds; cost accounting records; space, equipment and work flow planning; investigative studies; a comprehensive system of administrative, financial, clinical, technical and other records pertinent to the program. The responsibilities involved in food production include menu development and provision for nutritionally adequate and acceptable meals for patients within the ration allowance; food selection, purchase, receipt, storage, preparation, distribution, and service; personnel utilization; and safety and sanitation programs.

Some of the responsibility involved in diet therapy include the development, interpretation, coordination, and application of a sound diet therapy program to meet the needs for specific nutrients in the treatment of diseases; to assure the provision of attractive and acceptable diets; to provide nutritional education and guidance adapted to the individual patient to assure maximum contribution to his recovery; to coordinate the diet therapy program with those of other professional disciplines; and to participate in research activities.

The Nutrition and Dietetics Branch, Division of Indian Health, is responsible for coordinating in one program the three aspects of nutrition essential to improving the nutritional well-being of the Indian: research, preventive nutrition measures, and therapeutic dietetics. The Division's nutritionists and dietitians work closely with staff of other disciplines in a combined preventive health and medical care program to provide complete health services for American Indians and Alaska Natives.

The Headquarters Office of the Nutrition and Dietetics Branch formulates the Division's operational policies and standards for nutrition and dietetic services and coordinates these services with those of other branches of the Division.

Nutritionist and consultant dietitians assigned to the Division's Area Offices provide advisory and consultant services to Area and field staffs and are responsible for developing, organizing and coordinating nutritional and dietetic aspects of the Indian Health program within the Area.

Nutritionists plan and participate in educational activities designed to effect desirable nutrition practices as a means of reducing health problems influenced by, or resulting from, poor dietary habits. This means adapting nutrition information and education to the culture, needs, and resources of the Indian. Dietitians are stationed in the Division's larger hospitals and their outpatient clinics, and have responsibility for overall management of food service and diet as they relate to medical care.

Nutrition research activities include participation in the planning, conduct, interpretation and support of studies relative to the dietary practices and nutritional status of American Indians and Alaska Natives, as well as analysis of the nutritive values of native foods.

The Division of Hospital and Medical Facilities, which administers the Hill-Burton hospital construction program, develops elements and equipment lists covering the needs of the dietary department in medical facilities throughout the country. Consultation is also given architects on space, layout and equipment requirements for the various types and sizes of dietary departments in various types of medical facilities. In addition, assistance is given in research projects relating to the effective development and utilization of hospital dietary services, facilities, and resources.



# Social Security Administration

## Children's Bureau

By law and tradition, the Children's Bureau serves the children of the Nation; the legal base for its service being contained in two Acts and in delegations of responsibility to the Bureau by the Secretary of the Department of Health, Education, and Welfare and by the Commissioner of Social Security. To investigate and report upon all matters pertaining to the welfare of children and childlife among all classes of people was the charge given to the Children's Bureau under its basic Act of 1912. To assist the States through technical and financial aid in extending and improving their health and welfare services for children was the direction given to the Children's Bureau under Title V, Social Security Act, 1935, as amended.

The Children's Bureau is concerned with nutrition in carrying out each of its three main functions:

Fact Gathering and Reporting: Staff and equipment have been provided for carrying out cooperative research projects relating to nutrition. Publications feature nutrition as a major item in maternal and child health.

Technical Assistance and Standard Setting: Technical consultation on maternal and child nutrition is provided to health and welfare workers in the United States and workers from other countries or assigned to other countries. Assistance is also given in drafting and revising standards for the nutritional aspects of care of children and mothers.

Financial Aid to States: Grants-in-aid which help the States to develop health and welfare services including nutrition for mothers and children are administered. Such funds are used by the States to employ nutritionists, provide nutrition services and specialized training in nutrition.

General Objectives of the Nutrition Section.--The nutrition program of the Bureau has as its objective the improvement of the nutritional status of mothers and children in this country and in other countries within the scope of its international relationships.

To achieve this objective it directs its major efforts to: (1) Obtaining due consideration on part of Federal and State health and welfare staffs of the nutrition components of services to mothers and children, especially in those programs administered by the Children's Bureau under Title V of the Social Security Act; (2) developing and maintaining adequate nutritional and food service standards in institutions caring for mothers and children such as maternity hospitals and children's homes; (3) strengthening nutrition aspects of basic, graduate, and inservice training courses for child health and welfare workers; (4) strengthening present programs for training of public health nutrition workers (including supervised field experience) and developing additional facilities; (5) collecting and disseminating authentic information on nutritional needs of mothers and children; (6) stimulating interest in public health nutrition as a career; (7) keeping informed about nutrition problems and programs in other countries and working with nutritionists and officials who direct nutrition activities in international agencies.

Organization.--The Nutrition Section of the Program Services Branch of the Division of Health Services is responsible for Division policies as they relate to maternal and child nutrition. It also coordinates all Bureau activities directed toward improving the nutrition of mothers and children.

Nutritionists assigned to the central and regional offices of the Bureau carry on consultation and advisory services to the regional staff of the Bureau and to State agencies in planning, organizing, and carrying out nutrition services as part of State plans for maternal and child health services, and services for crippled children. They are also available for consultation to the child welfare representatives of the Bureau and to State

child welfare agencies. They give consultation upon request to staffs of other units of the Department of Health, Education, and Welfare, notably to the Bureau of Public Assistance, the Office of Education, and the Public Health Service.

Administrative Relationships with State Health Agencies.--The nutritionists and other members of the regional office team carry out the provisions of the Social Security Act, whereby grants-in-aid are made available to State agencies for health services to mothers and children and for services to handicapped children. These functions are performed through reviews of State plans and merit system materials, field visits, and through periodic program reviews.

Content of Consultation Service to State Agencies.--Consultation service to States is designed to assist along the following major lines: (1) measuring needs for nutrition services together with resources for meeting these needs, making workable plans for service; (2) setting up qualifications for personnel, recruiting qualified candidates, working out examination procedures that will test aptitudes for nutrition positions; (3) providing additional professional training needed by staff already employed, to be employed, or giving nutrition service from other agencies to the State program; (4) developing the nutrition aspects of such programs of State health and crippled children's agencies as supervision of maternal and child health, medical care programs for women with complications of pregnancy and children with crippling conditions, and licensing and maintenance of standards in facilities for the care of mothers and children.

Other Types of Consultation Service.--Educational institutions that are offering or planning to offer curriculums for the professional training of public health nutritionists seek advice as to content of academic study and of supervised field experience. The agencies that accept students for supervised field experience also request consultation.

Professional associations that include nutritionists in their membership receive cooperation on setting standards for qualifications of workers, on offering vocational guidance, and on assembling materials for testing candidates.

Cooperative Relationships with Other Federal Agencies.--The Nutrition Section prepares and reviews technical material relating to maternal and child nutrition for incorporation in publications of other Federal agencies such as the Department of Agriculture. In turn, it seeks advice from these agencies on the selection of basic data from related fields for use in Bureau guide materials and other publications. Projects involving cooperation between several agencies are carried on chiefly through membership in the Interagency Committee on Nutrition Education and School Lunch.

### Bureau of Public Assistance

The public assistance titles of the Social Security Act (titles I, IV, X, and XIV) provide that the Federal Government will participate financially, in accordance with the terms of the act, in assistance given by the States to needy individuals under the State public-assistance plans approved by the Commissioner of Social Security for old-age assistance, aid to dependent children, aid to the blind, and aid to the permanently and totally disabled. The State public-assistance legislation designates the agency to receive the grant-in-aid for each type of public assistance. In many States, the same agency administers or supervises the administration of all four public-assistance plans and often other public welfare programs as well.

A State public assistance agency must include in the plan that it submits to the Bureau of Public Assistance the policies and procedures by which it proposes to determine need of individuals and the amount of assistance payments in individual cases. In making its recommendations regarding State plans the Bureau recognizes that the States have considerable latitude under the Federal act in establishing policies and standards governing the determination of need. The State plan, however, must conform to the 1939 amendments to the Federal act requiring that the State agency shall in determining need take into



consideration all income and resources of an applicant applying for assistance. The 1950 amendments to the act established an exception with reference to aid to the blind. In that program the States must exempt from consideration the first \$50 a month of earned income, (effective July 1, 1952).

Public assistance payments in which the Federal Government is to participate financially must be made in cash with the exception that the Federal Government may participate in expenditures for medical care in behalf of the recipient. Public assistance is intended to supplement rather than to replace or duplicate available or continuing income or resources of an individual. The fact that all assistance granted, with the exception of medical care, must be in the form of a money payment has far reaching significance in relation to educational nutrition programs. Programs of popular education in nutrition direct the attention of all people, including assistance recipients, to the selection and use of foods which are most nutritious for the prices paid. Maximum benefits from these programs are derived by the public assistance recipient when he not only has knowledge of what foods to buy, but freedom and responsibility in the use of his money, which enables him to apply his knowledge according to his own choice of the effective use of the assistance he receives.

The establishment and maintenance of the policy of cash assistance depend upon acceptance of the philosophy that government has responsibility for protecting fundamental rights and freedoms of all its citizens--irrespective of their economic circumstances. By giving consideration in its policy for determining need to both the resources and the total cost of the requirement of the needy individual in accordance with State-wide standards, a public assistance agency is able to determine the deficit as a whole. Assistance is then related not to any single item of expense, but to this total. Thus the individual is left free to combine his resources with his assistance payment and to use his total means of support in ways best suited to his situation. His rights and responsibilities in the use of money are preserved, and the methods of administration avoid his being conspicuously singled out as a recipient of assistance.

How the Bureau Operates.--Through the regional offices of the Department of Health, Education, and Welfare, representatives of the Bureau provide consultation services to State public assistance officials on various administrative matters, including policies governing the determination of need. In addition, the regional staff may arrange with States for technical consultation from the Bureau's Central Office staff of specialists in assistance standards. This field of public-assistance administration requires specialized knowledge and experience. Therefore, technical consultants are available to State public-assistance agencies that request these services when undertaking the development and revision of their State standards and procedures for determining whether an individual is "needy," and the amount of assistance that he needs to supplement whatever income and other resources he may have.

Defense Responsibilities.--Under executive order of the President (in process of promulgation 2/24/60) the Bureau of Public Assistance has a basic responsibility (in cooperation with other Federal agencies) for developing plans, and nationwide guidance to State-local welfare forces in planning and maintaining readiness and capability for operation of Emergency Welfare Services, including the following: feeding, clothing, housing or lodging in private and congregate facilities, registration, locating and reuniting families, the aged, the handicapped, and other groups needing specialized care or service; necessary financial assistance or assistance in kind, counseling and referral services to families and individuals, aid to welfare institutions under national emergency or post-attack conditions, and all other feasible welfare aid and services to people in need during a civil defense emergency. Such measures include organization, direction, and provision of services to be instituted before attack in the event of strategic or tactical evacuation and after attack. The basic principles, outlined above, governing other Bureau programs, are applied to this activity. The assignment also includes responsibility for a plan for providing clothing in event of enemy attack.

## Food and Drug Administration

Organized by Congress to enforce several laws to promote the purity and honest labeling of foods and drugs, the Food and Drug Administration was transferred from the Department of Agriculture to the Federal Security Agency (now Department of Health, Education, and Welfare) in 1940. The most far-reaching of the laws enforced is the Food, Drug, and Cosmetic Act of 1938, as amended, which is a broader and stronger statute than the pioneer legislation enacted in 1906. Its provisions extend to foods, drugs, devices, and cosmetics in interstate channels or offered for importation into the United States.

Functions.--As related to food and nutrition, the Administration has three major functions:

1. Enforcement of the Food, Drug, and Cosmetic Act to insure a pure, wholesome, and nutritious food supply. Through this law the public is protected from foods containing deleterious ingredients, from filthy or decomposed articles, from products so debased that nutritional values are diminished, and from false or misleading representations in the labeling as to the therapeutic or nutritional efficiency of foods. The enforcement of this law also encourages proper handling of food supplies to prevent spoilage and contamination by insects and rodents, both to insure the public clean, wholesome products and to prevent unnecessary loss of foods in an era of world food shortages. It likewise protects the public from unknowingly spending its food dollars for inferior products.

2. The formulation of legal definitions and standards of identity and quality for foods to promote honesty and fair dealing in the interest of the consumers. Selected for such definitions and standards are many staple foods in the American diet, including items to which nutritional factors may be appropriately added. For the latter, standards of enrichment are specified to preclude partial or unnecessary fortification which would be misleading to the purchaser or contrary to his nutritional needs. Formerly food standards were based on testimony presented at public hearings called by the Secretary of Health, Education, and Welfare. This procedure was simplified by an amendment in 1954 which provides that any interested person may petition the Secretary to issue, amend, or repeal food standards. All interested persons are invited to comment on the petition and are given opportunity to file objections to the proposed order. It becomes effective without a hearing unless objections are filed and a formal hearing is requested. At such a hearing only the points to which exception is taken are considered. Nutritionists are invited to participate in the food standards program as advisers in the formulative stage and by commenting on proposed orders and testifying at hearings on controversial issues.

By means of regulations authorized by law, foods intended for special dietary uses are required to bear labeling which will inform purchasers fully as to the value of the article for such uses. Foods intended for infant feeding, for the control of body weight, and for use in the dietary management of disease, are typical of such products.

3. Research to form a groundwork for the enforcement of the act and the formulation of food standards.

Application of scientific advances in food technology necessitates the development of new methods and the improvement of old methods for accurate and minute determinations of the composition of foods and the potency of vitamins by objective tests that will stand up in court contests. More accurate and more precise methods are developed as new knowledge and new instruments become available.

In directing enforcement operations the administrative officers are confronted with questions relating to requirements, stability, availability, and assimilability of nutritional factors. They are concerned also with the validity of claims for the therapeutic value of vitamin and mineral products and other articles that are offered for special dietary use. The staff laboratories perform an important function in conducting original investigations that relate to these problems. It is necessary to develop new facts with respect to metabolism of nutrients and to the possible effects of a great variety of food additives upon



the nutritive value of the food as well as upon the absorption and metabolic utilization of nutrients. Studies involve protein requirements, amino acid composition, and protein quality measurement. New information is needed with respect to fat utilization, changes in composition and fatty acid configuration that may occur with processing, and safety of heated fats. A research program that involves these subjects supplements and extends research findings from industrial and academic laboratories.

Formulating food standards requires the gathering of all available information relating to the manufacture, composition, and use of the product; and the development of further information on the adequacy and suitability of any processing that may be necessary for preservation of the food, on suitability of various ingredients, including a study of possible toxicity, on range of variation of composition, on retention of nutrients, and on adequacy of methods of analysis.

Policy.--It is the purpose of the Food and Drug Administration to apply the provisions of the statute toward the maintenance of a sound American food supply and to prevent improper exploitation of scientific advances in the food field. To prevent violation, the regulated industries are fully informed on regulatory requirements and standards and are given technical information and guidance, in recognition of the fact that willing compliance is a major factor in public protection. Major regulatory attention is given to the minority fringe of careless, ignorant, or willful violators of the law.

How the Food and Drug Administration Operates.--Laboratories in Washington and in 17 other cities are equipped with modern scientific apparatus for rapid and accurate testing of foods, medicines, and cosmetics, to discover and prove violations. Trained staffs of specialists investigate sanitary conditions in factories, evaluate the raw materials used, and study methods of processing, preserving, packaging, transporting, and storing such products.

The Food and Drug Administration works with other Federal agencies, and State and local officials to check adulteration and misbranding.

Alleged violations of the Food, Drug, and Cosmetic Act are reported to the Department of Justice, which brings seizure, criminal prosecution, and injunction actions in the Federal courts.

## FEDERAL TRADE COMMISSION

The Federal Trade Commission is an independent agency charged with the responsibility for administering and enforcing laws in the field of antitrust and trade regulation. Such laws deal with the prevention of monopoly, restraints of trade, and unfair trade practices. The Commission also has the duty of investigating economic problems and corporate activity. A primary purpose of the laws which the Commission administers is to protect competition in our private enterprise economy. In varying respects such laws affect the sale of commodities of virtually every type, including products coming within the field of food and nutrition.

The Federal Trade Commission Act, passed in 1914 and amended by the Wheeler-Lea Act of 1938, confers upon the Commission two broad functions. Under the first, the Commission, subject to certain exceptions, is "empowered and directed to prevent persons, partnerships or corporations, \* \* \* from using unfair methods of competition and unfair or deceptive acts or practices in commerce," which are declared by statute to be unlawful.

Related to the subject of present interest is the Wheeler-Lea Act amendment, which confers special authority upon the Commission for the control of false advertising of foods, drugs, cosmetics and curative or corrective devices. For such purposes the term "false advertisement" is defined to mean "an advertisement other than labeling, which is misleading in a material respect; \* \* \*." In cases of this type, jurisdiction of the Commission may be grounded in use of the United States mails as well as interstate commerce. When necessary for the public interest, the Commission is authorized to obtain temporary injunctions against the false advertising of foods, drugs, cosmetics or curative devices, pending completion of the cease and desist order proceedings. Where the commodity advertised is injurious to health, or where the advertising is with the intent to defraud or mislead, criminal prosecution may also be had.

The second broad category of functions conferred by the Federal Trade Commission Act consists of powers conferred by Section 6 which empowers the Commission to gather and compile information concerning, and to investigate "the organization, business, conduct, practices and management of any corporation engaged in commerce, except banks and common carriers subject to the Act to regulate commerce, and its relation to other corporations and to individuals, associations, and partnerships." The Commission also is empowered to require such corporations to furnish information and to file annual and special reports.

The Commission conducts economic inquiries and studies of conditions affecting trade and commerce in aid of legislation or for executive action. A substantial number of such economic inquiries relate to food products, including, for example, studies of Wholesale Bread Baking Industry, reported in 1945 and 1946; Investigation of Coffee Prices, reported July 30, 1954; and Economic Inquiry into Food Marketing, Interim Report, dated June 30, 1959.

In carrying out its assigned mission, advertisements over the radio and television and in magazines are subject to continuous scrutiny by the Commission's staff for enforcement purposes. The Commission likewise acts upon complaints received from members of the public, competing business concerns, and trade or other organizations. These complaints should be addressed to the Federal Trade Commission, Washington 25, D. C.

The Commission publishes all its complaints, cease and desist orders and reports, which are available upon request.



# VETERANS ADMINISTRATION

## Department of Medicine and Surgery

The Veterans Administration was established as an independent agency by Executive Order 5398 of July 21, 1930, in accordance with the Act of July 3, 1930 (46 Stat. 1016; 38 U.S.C.N.). This act authorized the President to consolidate and coordinate Federal agencies concerned with the administration of laws providing benefits for veterans. Among these benefits is hospitalization for all veterans and outpatient medical care of veterans with service-connected disabilities. The Department of Medicine and Surgery of the Veterans Administration insures complete medical care and treatment of veterans as prescribed by the Administrator of Veterans' Affairs, pursuant to the act of January 3, 1946 (59 Stat. 675; 38 N.S.C. 15-15n) and other statutory authority and regulations.

The Dietetic Service of the Department of Medicine and Surgery is responsible for food service functions in hospitals, centers, and domiciliaries, and the nutrition program in Outpatient Clinics. Its Central Office staff formulates and recommends policies, plans and professional standards pertaining to dietetic services department-wide to promote efficiency of operation and effective dietary care. Area Office Dietetic Representatives survey hospital, center, domiciliary, and Outpatient Clinic dietetic activities to promote the carrying out of established standards of operation and give assistance in solving existing problems. Dietitians at the field stations assume full responsibility for operation of the Dietetic Service. Central Office staff coordinate efforts with the Area Representatives and make special purpose visits to the field to evaluate all phases of the dietetic program.

The functions of the Dietetic Service are to: (1) plan the total food service operation to provide nutritionally adequate and acceptable meals for the patients, and within budgetary allowance; (2) accurately fill physicians' dietary prescriptions respecting requirements imposed by abnormal physiological conditions and the psychological needs of the individual patient; (3) maintain an investigative attitude toward gaining new scientific knowledge and consistently apply it in a practical manner in dietary treatment of the patient; (4) provide progressive nutritional education programs for the patients considering their social, economic, and cultural influences to aid in their rehabilitation; (5) maintain a Special Advisory Council of nongovernmental representatives to give advice and guidance in all dietetic matters; (6) maintain Dietetic Internship and Residency Training at selected locations to assist in filling the need for well qualified professional staff; (7) conduct workshops and conferences for dietitians relating to policies and procedures for overall Dietetic Service operations and to exchange experience information; (8) conduct refresher courses for cooks, bakers, meat cutters, and food service supervisors to emphasize and clarify practicable methods to realize a food service of high quality.

The Dietetic Service, Central Office, develops and disseminates guide material to field stations as reference in carrying out established policies and procedures.

# THE AMERICAN NATIONAL RED CROSS

## Food and Nutrition Program

The American National Red Cross, a quasi-governmental agency, was incorporated under congressional charter in 1900. The charter provision under which the organization engages in food and nutrition activities reads as follows: ". . .to continue and carry on a system of national and international relief in time of peace and apply the same in mitigating the suffering caused by pestilence, famine, fire, floods and other great national calamities and to devise and carry on measures for preventing same."

Many Red Cross services have some inherent phase of food, feeding, or nutrition in their activities.

A consultant is maintained at national headquarters to give professional and technical guidance to the staff at the national and area offices and to assist in developing the food and nutrition content of manuals, textbooks, training aids and guides, and other educational materials prepared by the Red Cross.

Some Red Cross chapters have a food and nutrition program to provide similar guidance to the various chapter services. A few extend assistance to the community on request for help from other agencies, groups, or individuals. The full responsibility for professional direction of its food and nutrition program is placed upon the chapter.

Red Cross nutritionists are asked to help with the food and feeding aspects of the disaster preparedness and relief program; the preparation of guides to family living costs and the food and nutrition problems of families of servicemen and veterans; the development of guides and aids for training volunteers in emergency mass feeding; and preparing the content on food and nutrition for the courses offered by Red Cross Nursing Service. The consultant also advises and assists the Junior Red Cross and the office that works with the League of Red Cross Societies and the International Red Cross on questions, problems, and projects relating to food, feeding, and nutrition.



# NATIONAL ACADEMY OF SCIENCES--NATIONAL RESEARCH COUNCIL

## Division of Biology and Agriculture

### Food and Nutrition Board

The National Academy of Sciences, established by Act of Congress in 1863, is a private nonprofit organization of scientists dedicated to the furtherance of science and to its use for the general welfare. The National Research Council was established in 1916 by the Academy to assist the Government in mobilizing the scientific resources of the country for national preparedness.

On May 11, 1918, President Wilson issued an Executive Order requesting the National Academy of Sciences to perpetuate the National Research Council, thereby assuring permanent cooperation between civilian scientists and the scientific and technical branches of the Government, both military and civil.

At the request of the Commissioner for Consumer Protection of the Advisory Commission to the Council of National Defense, a Committee on Food and Nutrition was established December 7, 1940, by the Council's Division of Biology and Agriculture to provide professional advice in nutritional physiology and biochemistry.

The Committee on Food and Nutrition became the Food and Nutrition Board, and has continued to develop its activities, financed primarily by private resources. The Board focuses the science of nutrition upon national health problems and advises on and co-operates in international nutrition programs. A grants-in-aid program, established in 1956 in collaboration with the United Nations, furthers a worldwide research effort to find adequate sources of protein-rich foods for food-deficient countries.

The Food and Nutrition Board is made up of 20 nongovernmental members and has liaison representation from six governmental agencies and five scientific societies. Liaison is also maintained with the Canadian Council on Nutrition, the Defense Research Board of Canada, the British Joint Services Mission, the Food and Agriculture Organization of the United Nations, the National Research Council's Division of Medical Sciences, and the Council on Foods and Nutrition of the American Medical Association.

The Board conducts its work primarily through committees, which include at present committees on: Amino Acids, Cereals, Dietary Allowances, Dietary Phosphates and Dental Caries, Food Protection, Infant Nutrition, International Nutrition Programs, Milk, Nutritional Studies at Elgin State Hospital, and Protein Malnutrition.

# OFFICE OF CIVIL AND DEFENSE MOBILIZATION

## Food and Nutrition Services

The Office of Civil and Defense Mobilization established in the Executive Office of the President now exercises those responsibilities of coordinating and directing the civil defense and defense mobilization activities of the Federal Government previously assigned to the Office of Defense Mobilization and the Federal Civil Defense Administration.

The National Plan for Civil Defense and Defense Mobilization promulgated by the President and Annexes thereto issued by the Director, OCDM, establish policies and guidelines to be followed by the Federal Government, State and local governments and the public.

By Executive Order, the head of each Federal department and agency under the policy direction of the Director, OCDM, plans and conducts such civil defense and defense mobilization activities as are most directly related to the normal responsibilities of the department or agency.

In keeping with this policy the preparation of national emergency plans and the development of preparedness programs related to the production, processing, storage and distribution of food through the wholesale level and nutrition responsibilities of OCDM are assigned to the Department of Agriculture with exceptions as follows:

1. The Department of Health, Education, and Welfare through its Food and Drug Administration is responsible for the safety, purity and wholesomeness of food (other than meat and poultry and agricultural commodities and products owned by the Commodity Credit Corporation or the Secretary of Agriculture) and through its Public Health Service is responsible for conducting certain studies on nutrition and also developing standards for guidance to State and local governments on selected foods and matters of sanitation from a health point of view.

The Department of Health, Education, and Welfare is also responsible for providing guidance to and assisting State and local governments in carrying out any required mass feeding operations in the event of an emergency.

2. The Department of the Interior under delegation from the Secretary of Agriculture is responsible for the civil defense and defense mobilization matters pertaining to the production of fish and fishery products.
3. State and local governments are responsible for managing retail stocks of food and for carrying out any required mass feeding operations with assistance as stated above.
4. Individuals are responsible for stocking a 2-weeks supply of edible food in homes for use in case of an emergency.

All research projects sponsored by OCDM on food and nutrition stemming from the possibilities of limited or general war are either performed by or coordinated with the U. S. Department of Agriculture.



In summary, OCDM relies upon the Department of Agriculture for development and execution of a national food plan to meet the requirements of limited or general war including all measures essential to the production, processing, storage and distribution of food through the wholesale level.

OCDM provides the necessary coordination facilities at State and local levels to provide understanding among Federal, State and local officials in completing detailed plans to cope with emergencies. This coordination is performed through Regional Officers of OCDM.







